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143

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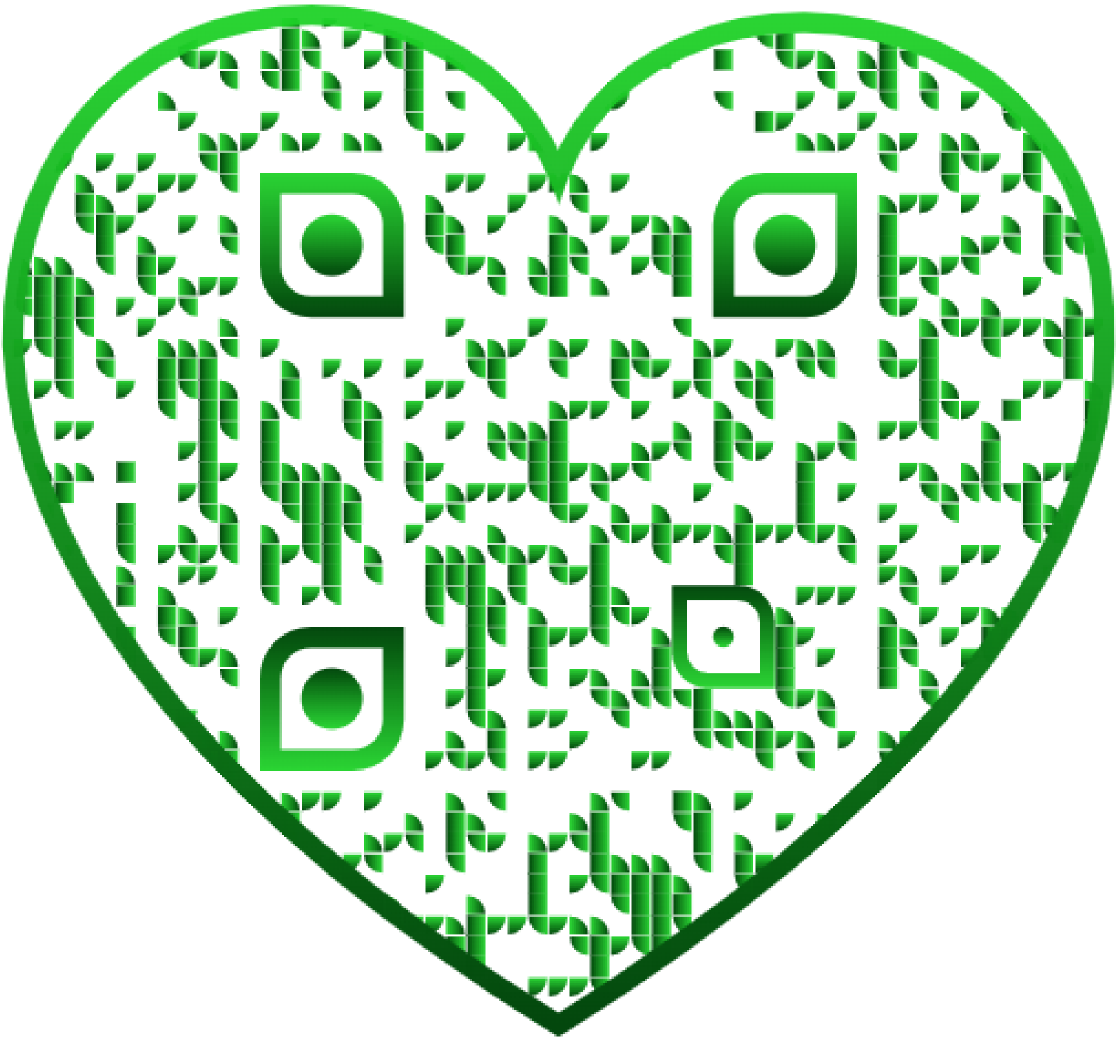
LAST ORDERS

THOMAS BIRZER'S
GRUPPE FEHRMANN TIGER I



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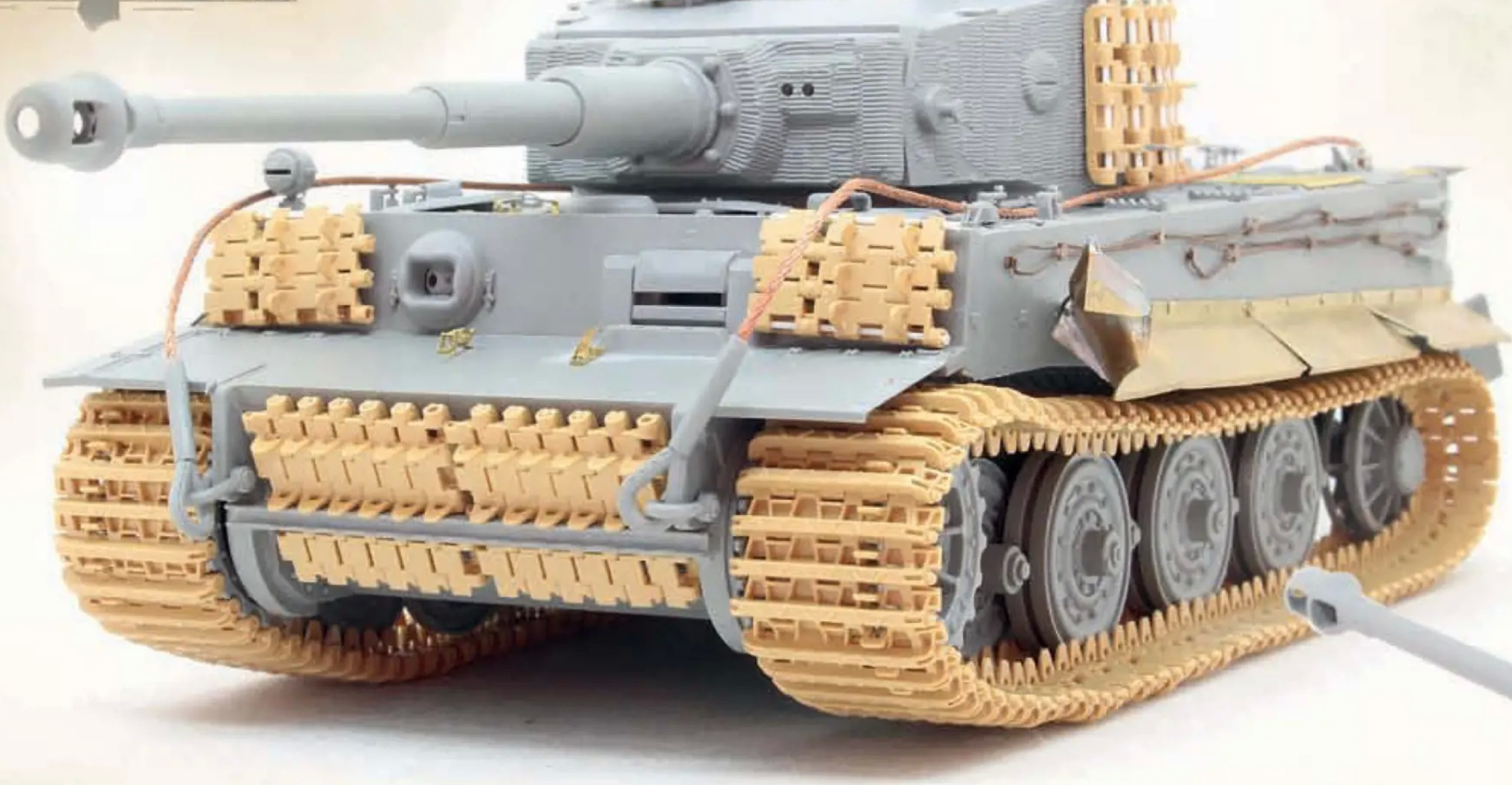
LAST ORDERS

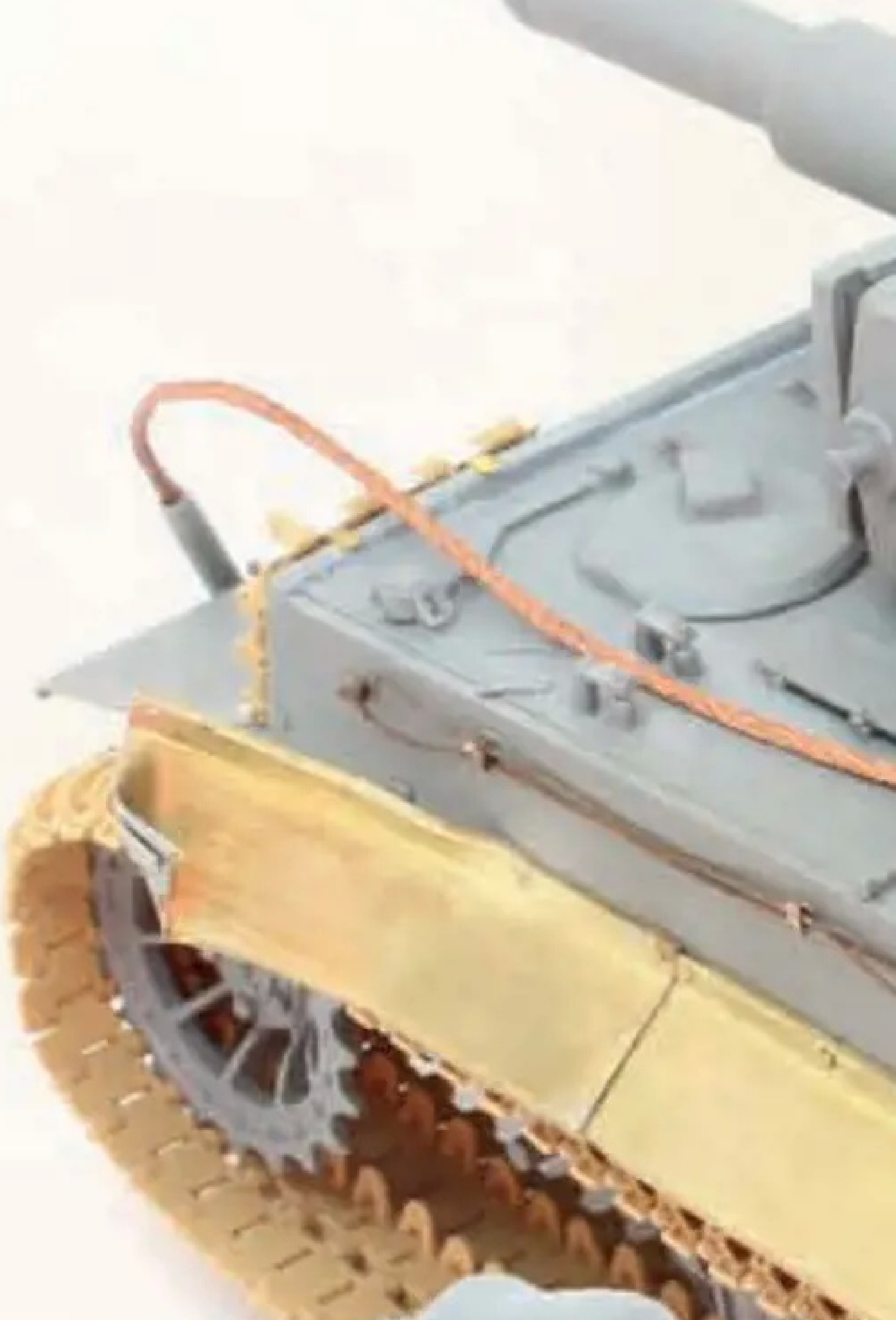
THE INFAMOUS F01, THE LAST SURVIVING TIGER OF GRUPPE FEHRMANN, APRIL 1945

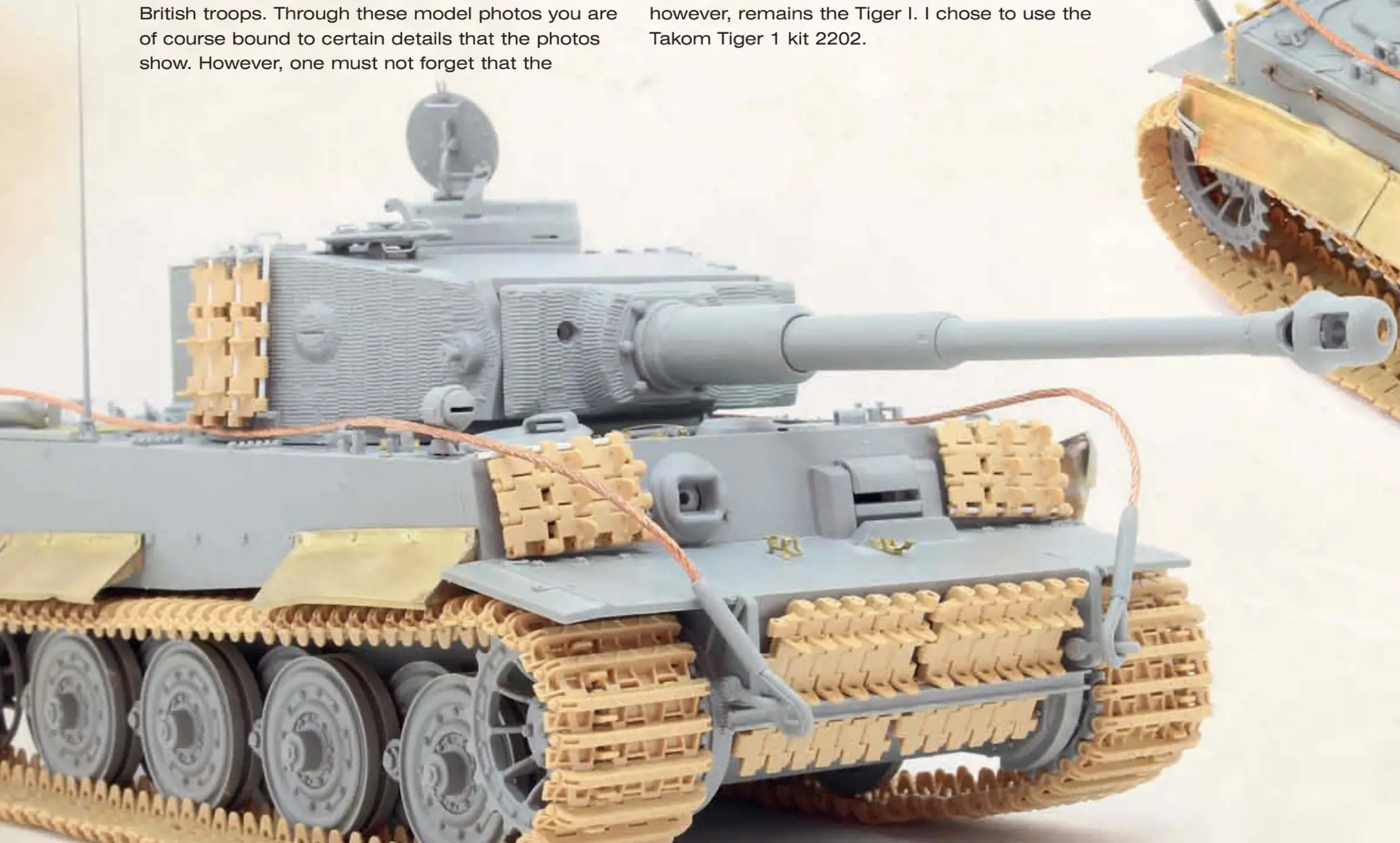
MODELLED BY THOMAS BIRZER

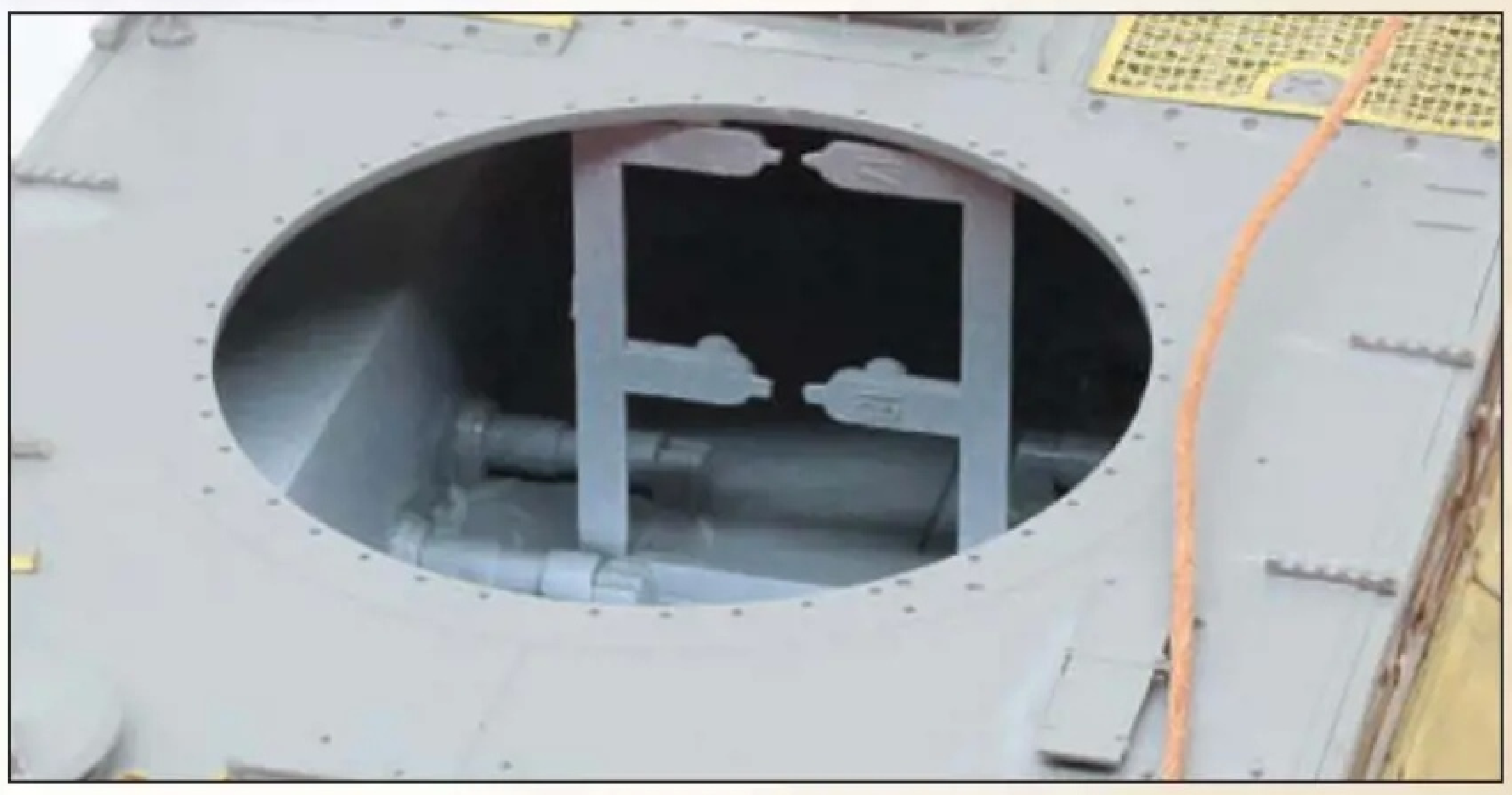
In a desperate need for heavy tanks to defend Germany from the Allied advance older vehicles were resurrected from training schools and pressed into service. A collection of six Tigers under the leadership of Oberleutnant Fehrmann and a number of Panthers led by Major Schulze attempted to break into the ruhr pocket almost piercing the Allied front lines. These ‘Frankenstein’ big-cats have always proved popular modelling subjects with their quirky features.



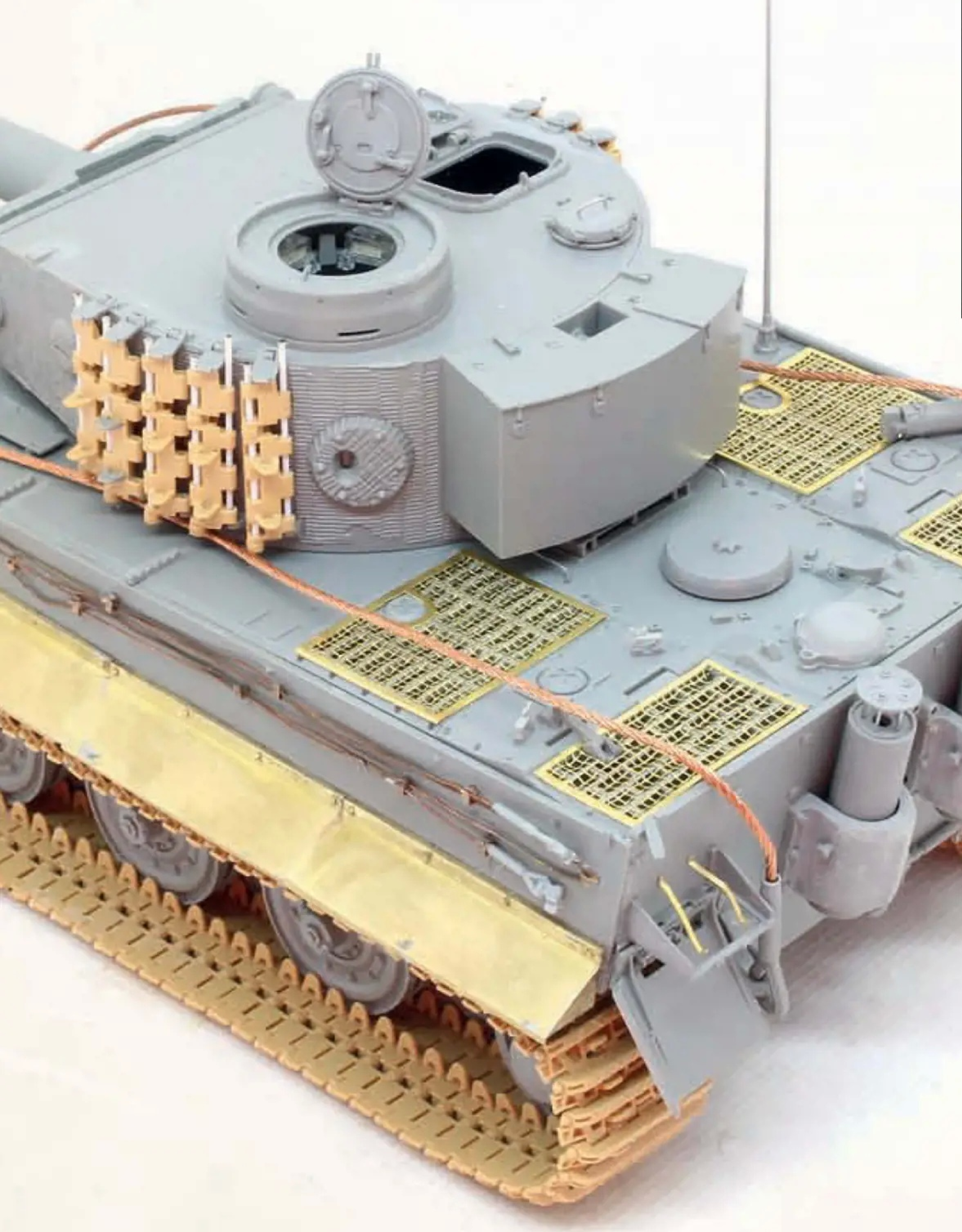
Anyone wanting to build a Tiger from the "Fehrmann" group can choose from half a dozen models. Takom has had a kit in its range for some time now that is precisely tailored to the Tiger "F01." There are also a number of pictures of this vehicle that show it after it was knocked out by the British troops. Through these model photos you are of course bound to certain details that the photos show. However, one must not forget that the pictures show a wreck that has been knocked out. To realistically depict certain damage, the use of etched parts is necessary. However, to capture the grim final days and weeks of the war, building the vehicle alone is not enough. A small diorama with figures is required. The focal point of the scene, however, remains the Tiger I. I chose to use the Takom Tiger 1 kit 2202.

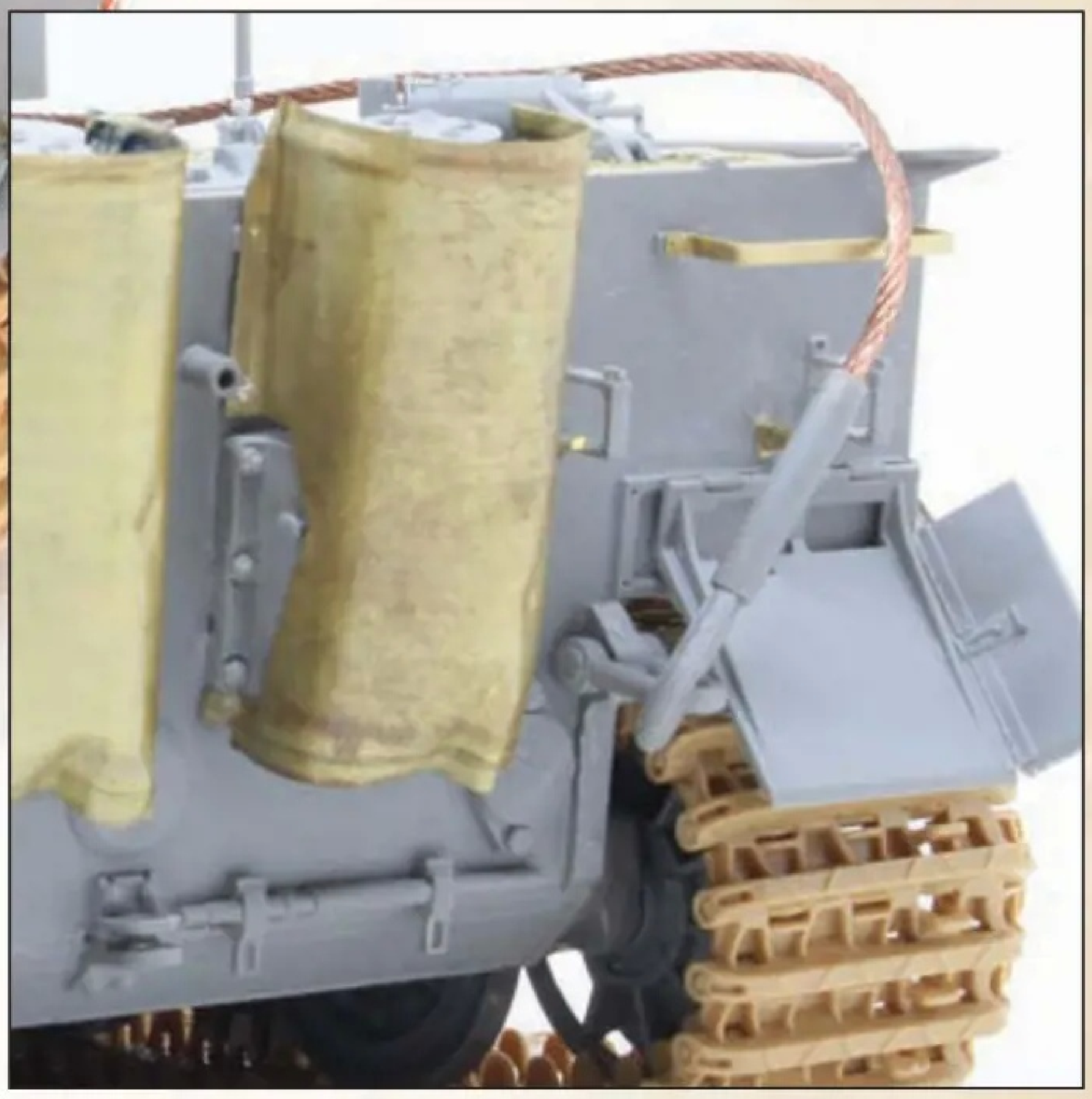






If you omit the radiator unit under the fan grilles, which doesn't fit very well, you should glue in supports for stability. Otherwise, the entire engine deck would be very unstable.

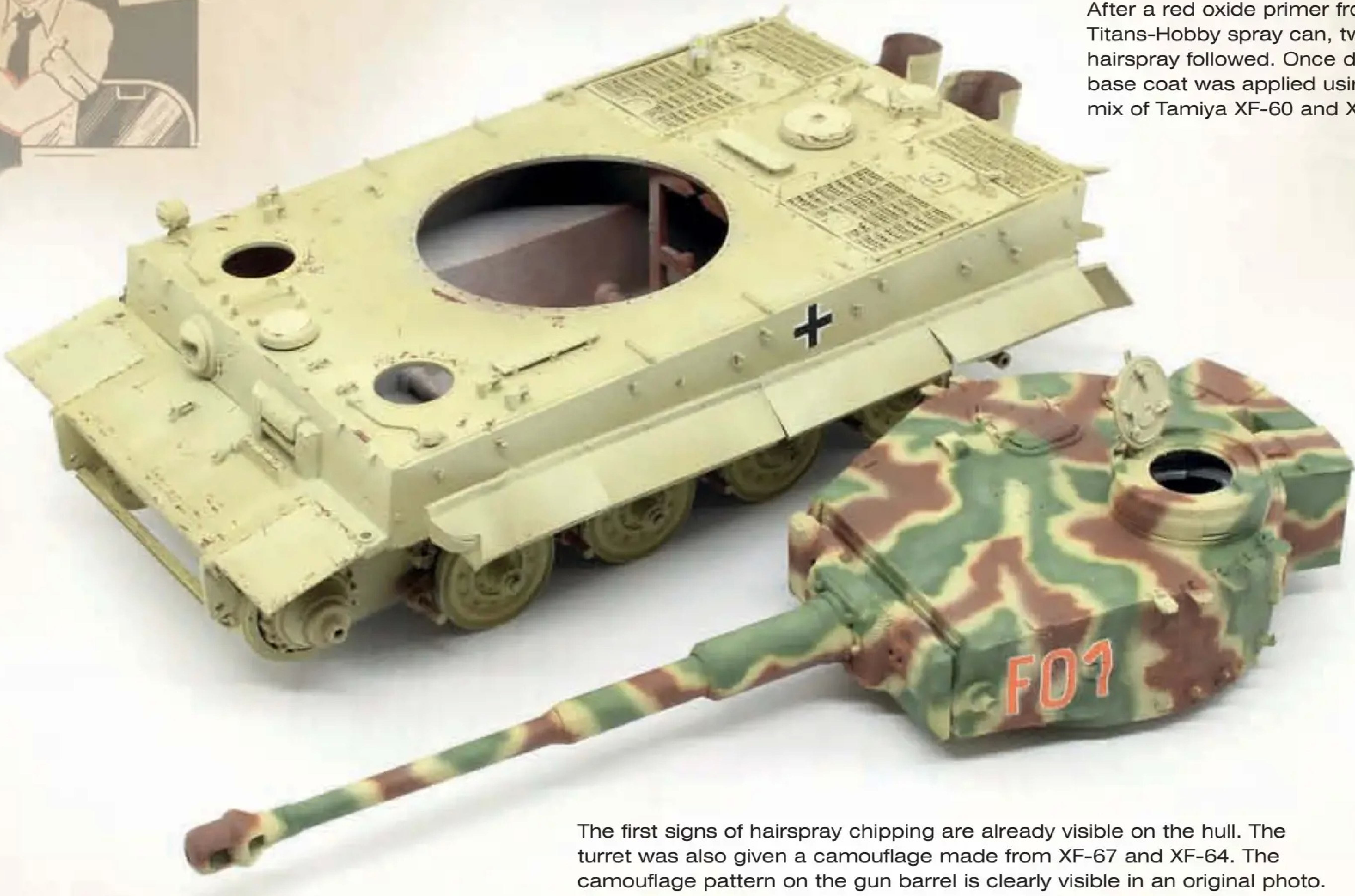




The kit is generally quite well detailed. However, if you want maximum detail and even damage to the sheet metal, you can't avoid using etched parts.

The RyeFieldModels track still mounted here was later replaced with the segmented track from the kit. Neither track is highly recommended, however, as the individually glued-on guide horns are very fragile.

LAST ORDERS

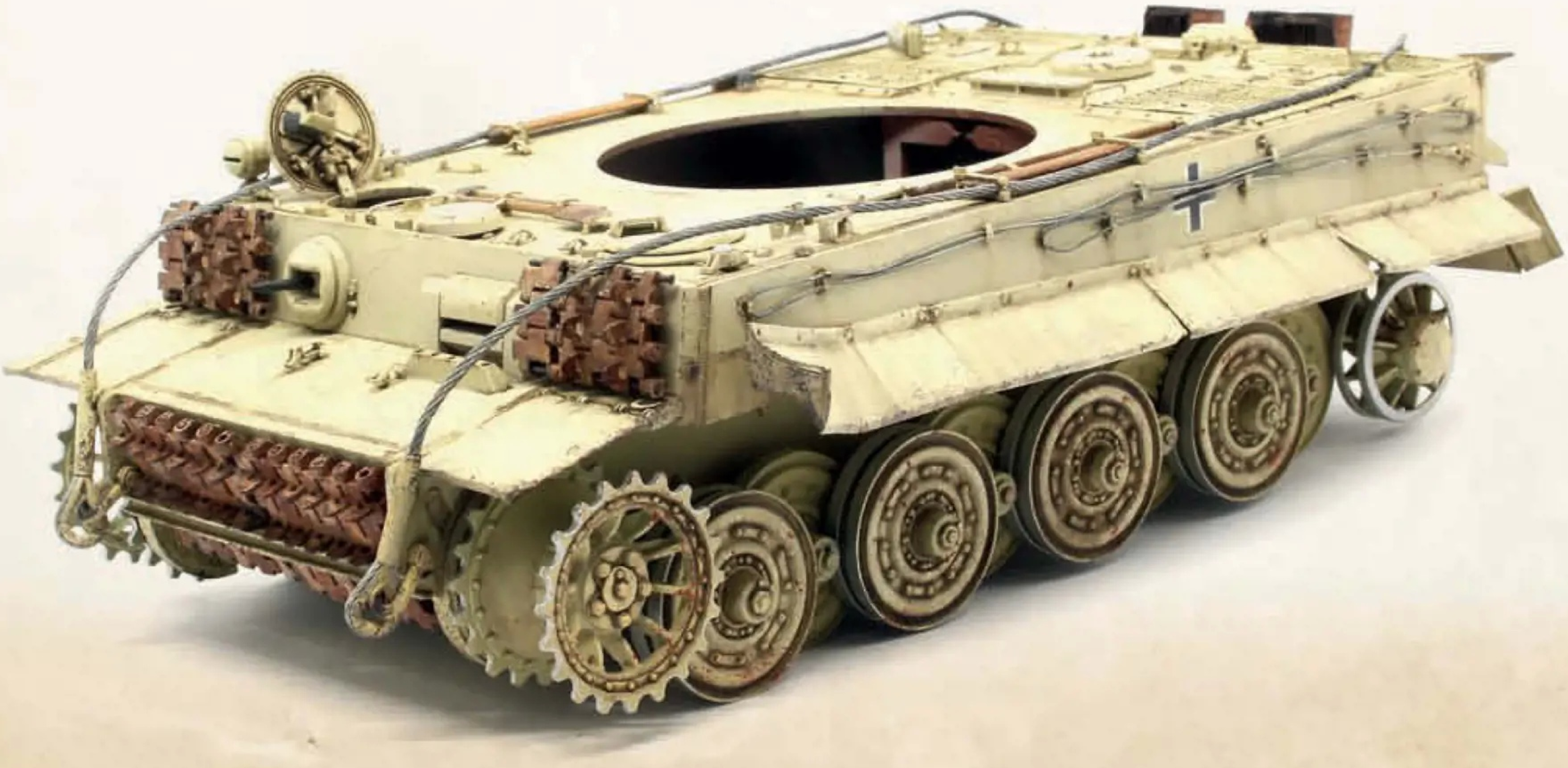


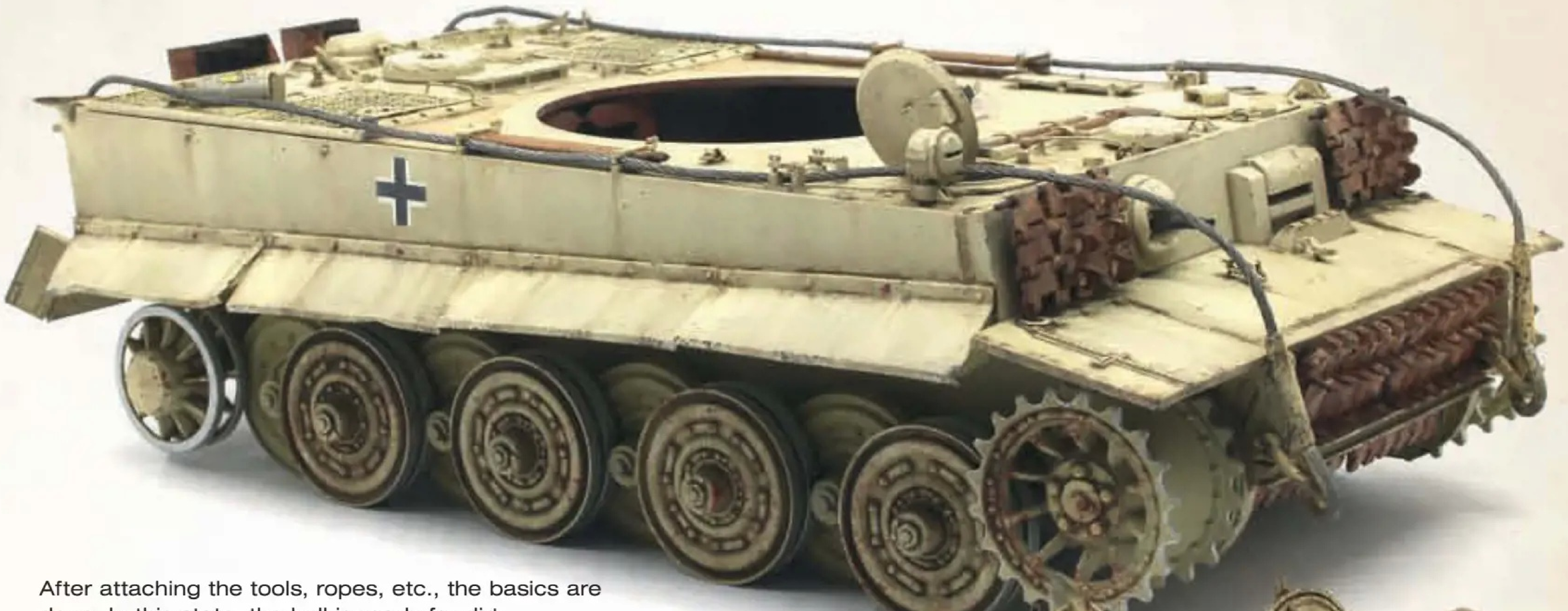
After a red oxide primer from a Titans-Hobby spray can, two coats of hairspray followed. Once dry, the base coat was applied using a 60:40 mix of Tamiya XF-60 and XF-2.

The first signs of hairspray chipping are already visible on the hull. The turret was also given a camouflage made from XF-67 and XF-64. The camouflage pattern on the gun barrel is clearly visible in an original photo.

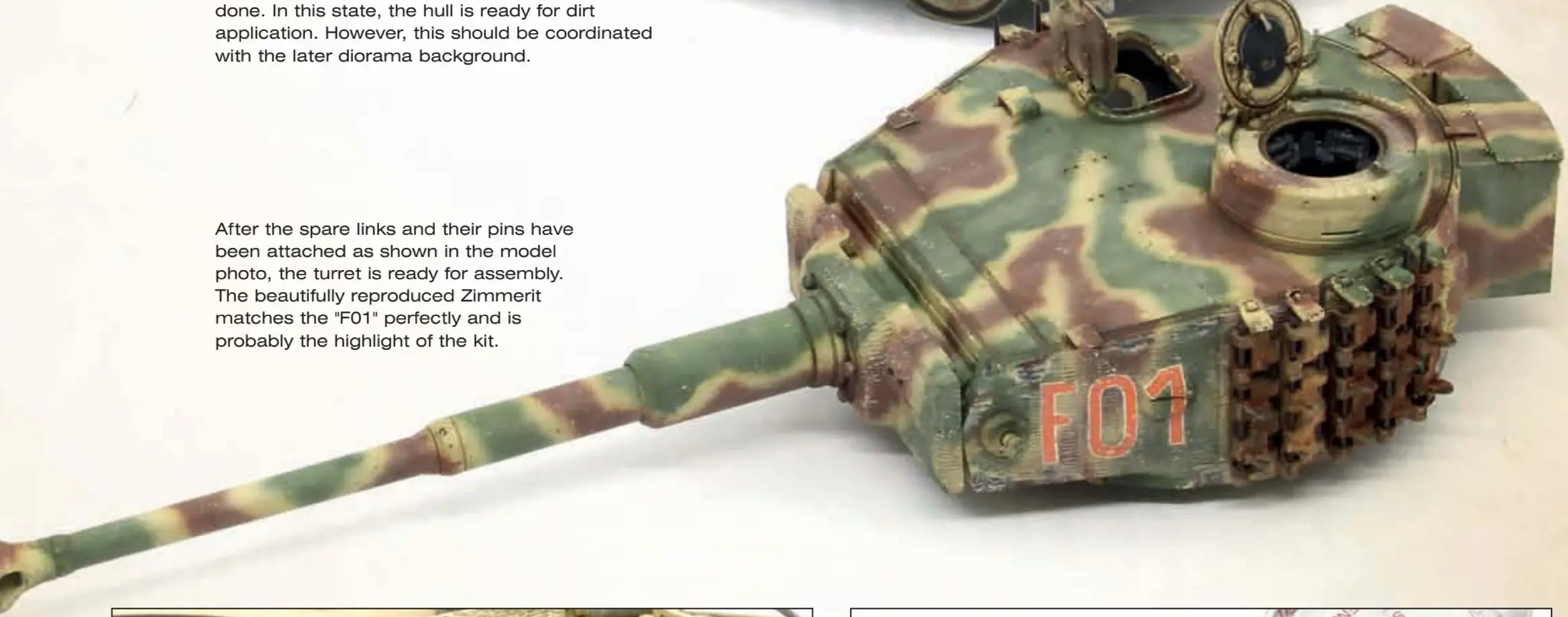
The relatively new Real Colors Markers from AK were used for the first time during the subsequent painting of the details. They are a real relief for the scale modeller in a whole range of painting scenarios.

The next step is pinwashing and filtering. Two or three oil paints are actually sufficient. In this case, it was "Buff" and "Van Dyck Brown." Pigments can also be added to create dirt accumulation.

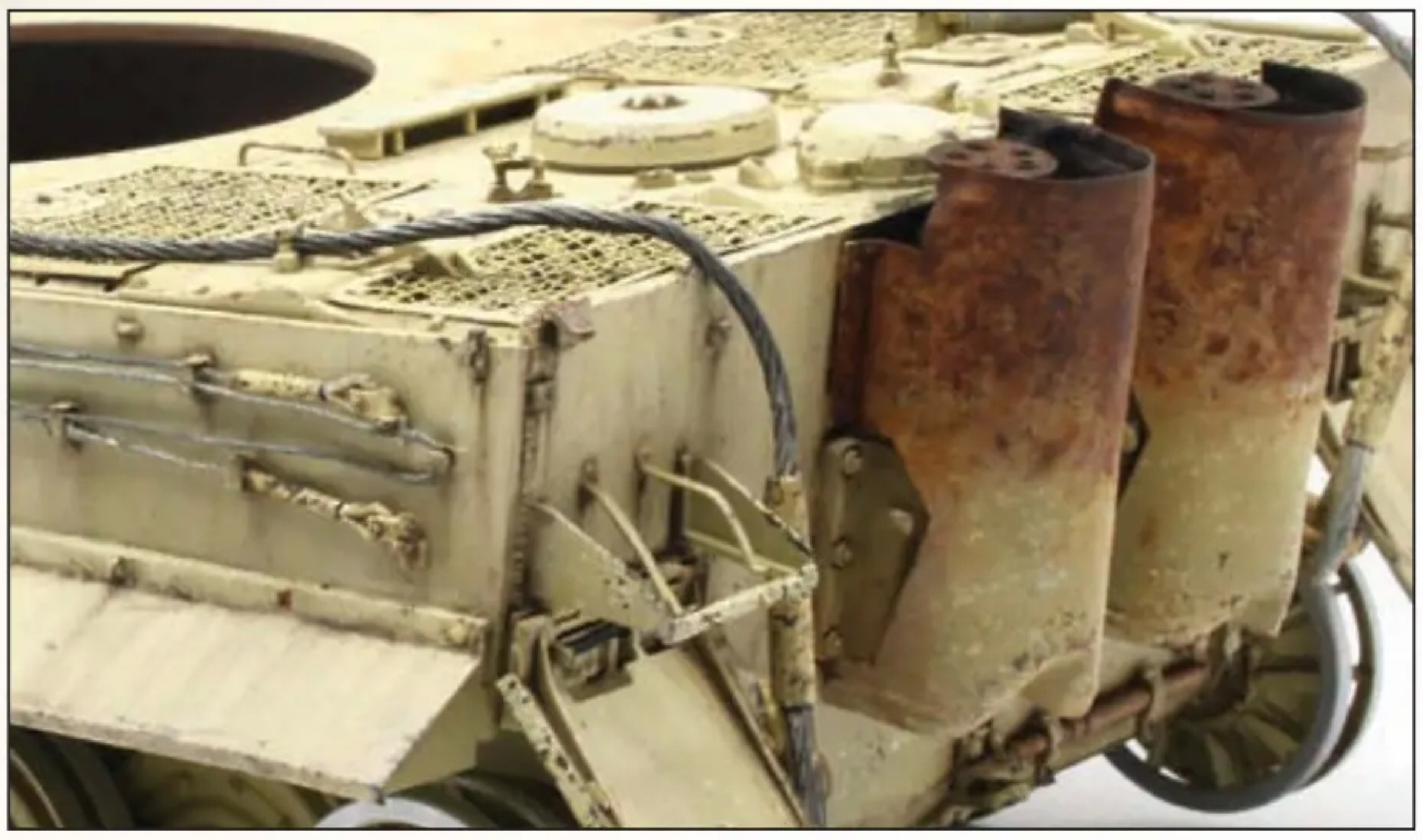




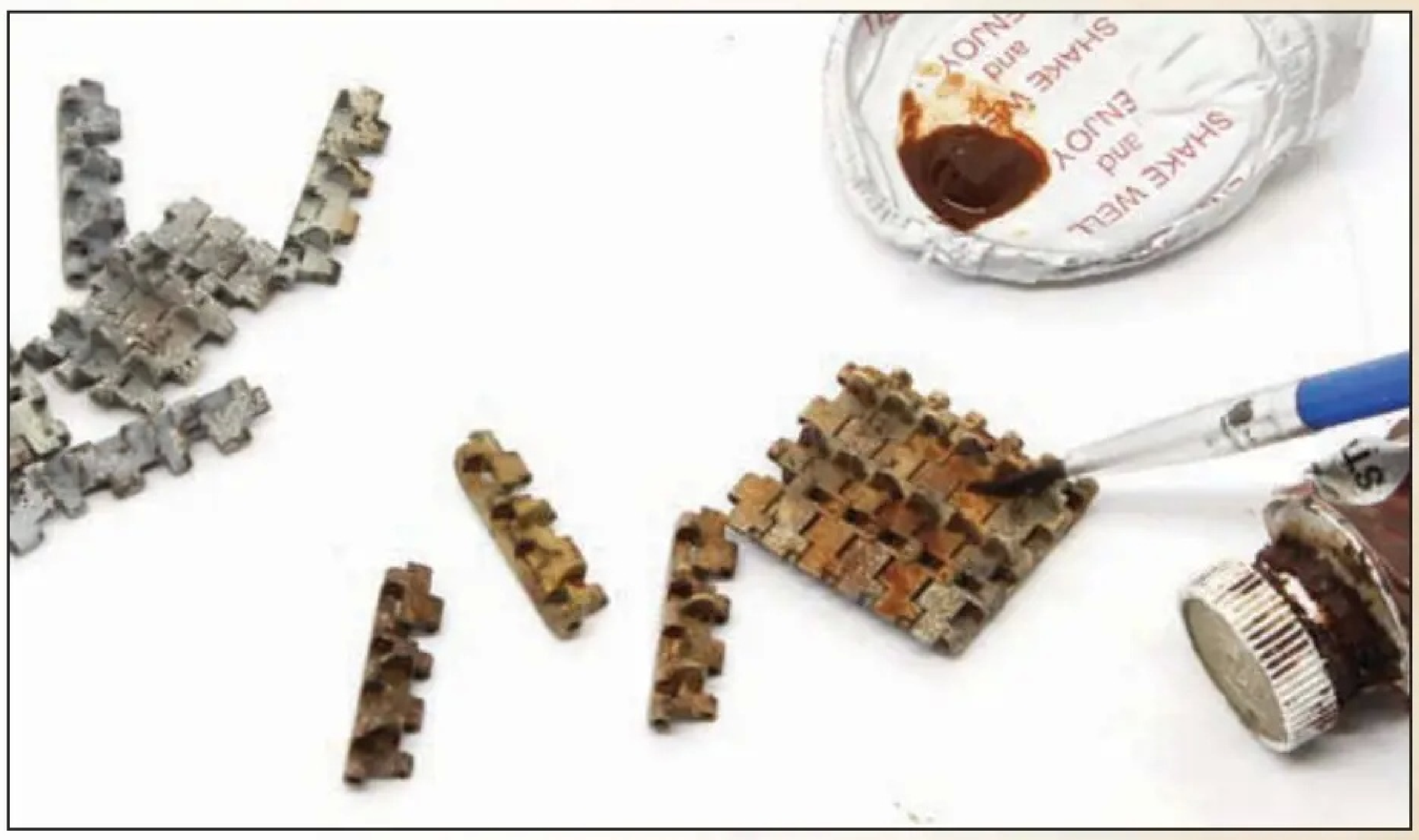
After attaching the tools, ropes, etc., the basics are done. In this state, the hull is ready for dirt application. However, this should be coordinated with the later diorama background.



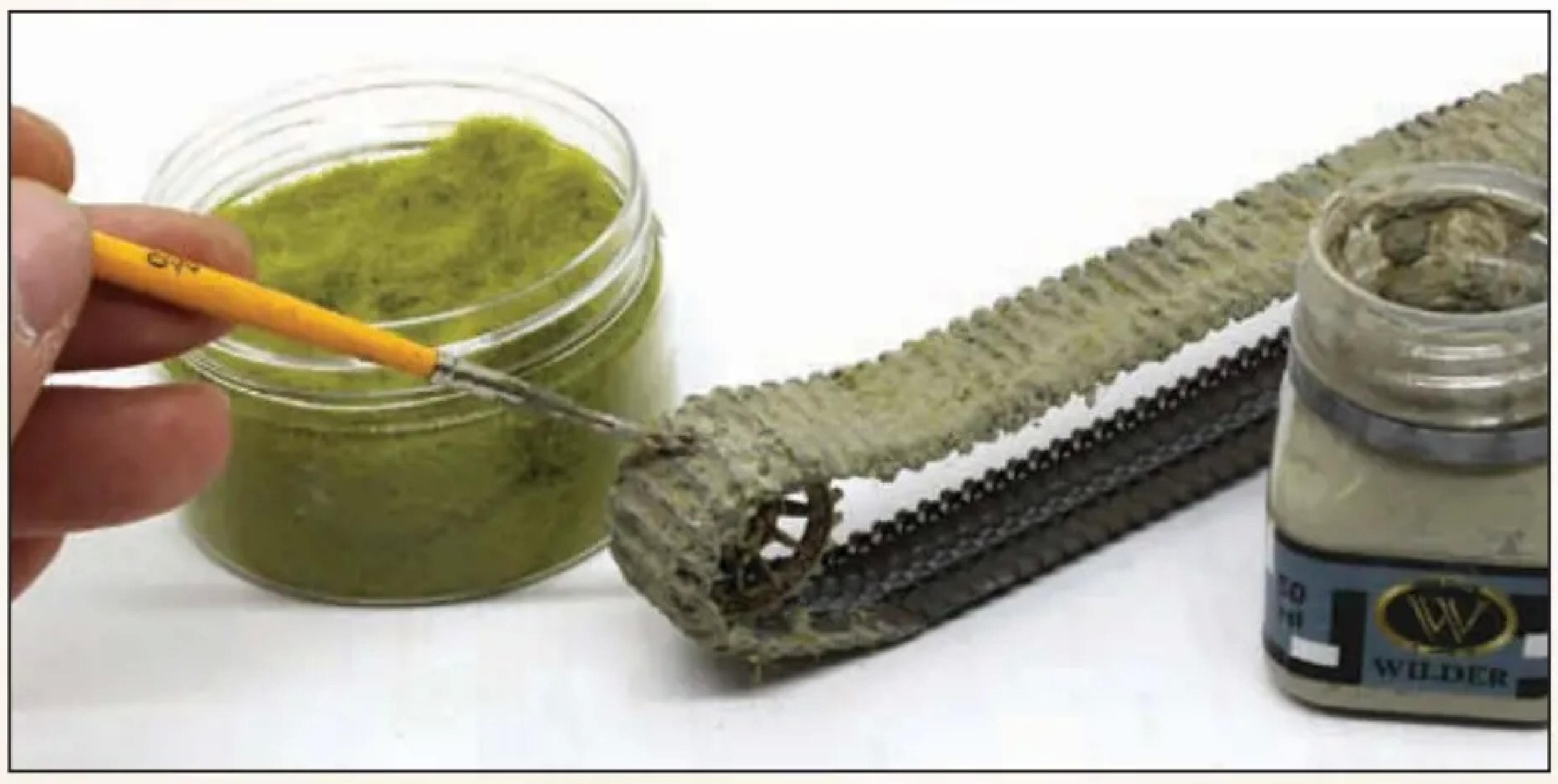
After the spare links and their pins have been attached as shown in the model photo, the turret is ready for assembly. The beautifully reproduced Zimmerit matches the "F01" perfectly and is probably the highlight of the kit.



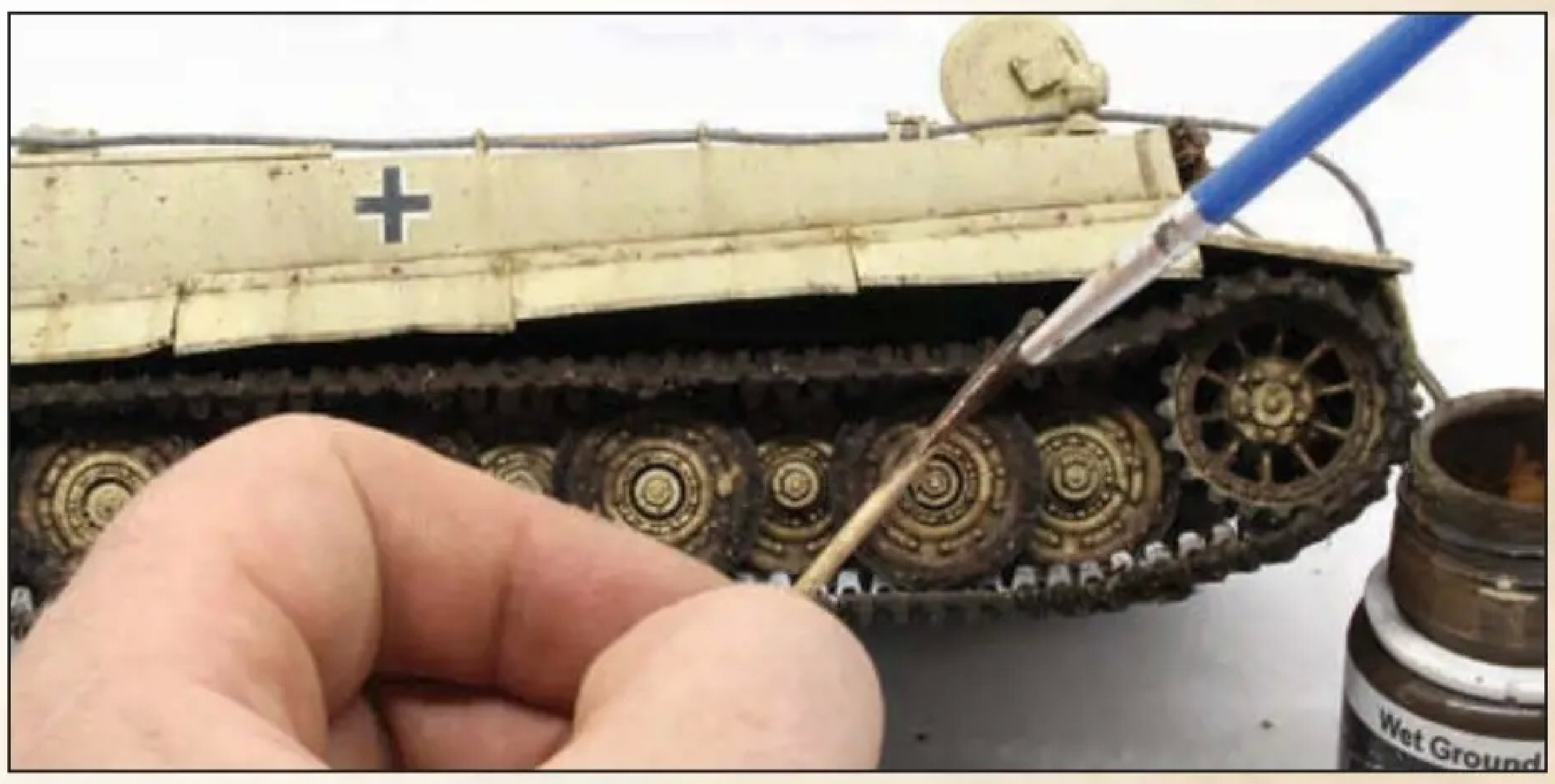
Exhaust covers rusted like this can occasionally be seen in original photos. The upper part is probably literally glowing during the process. Such effects are easy to create with the "Burnt Sienna" oil paint.



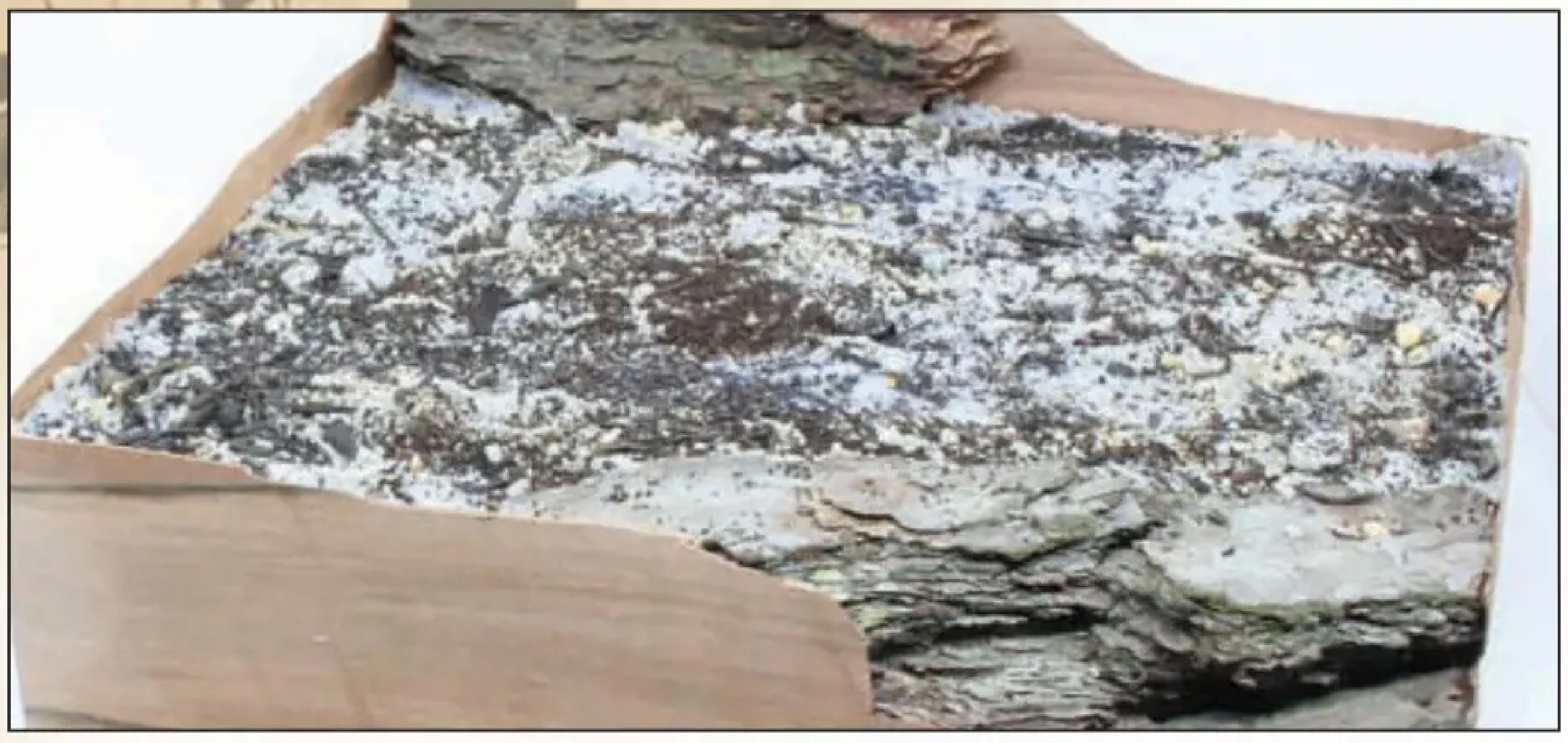
"Burnt Sienna" is also the oil paint of choice for the spare track links. A grey base coat of the links with brown sponge chipping is the best prerequisite for beautiful results.



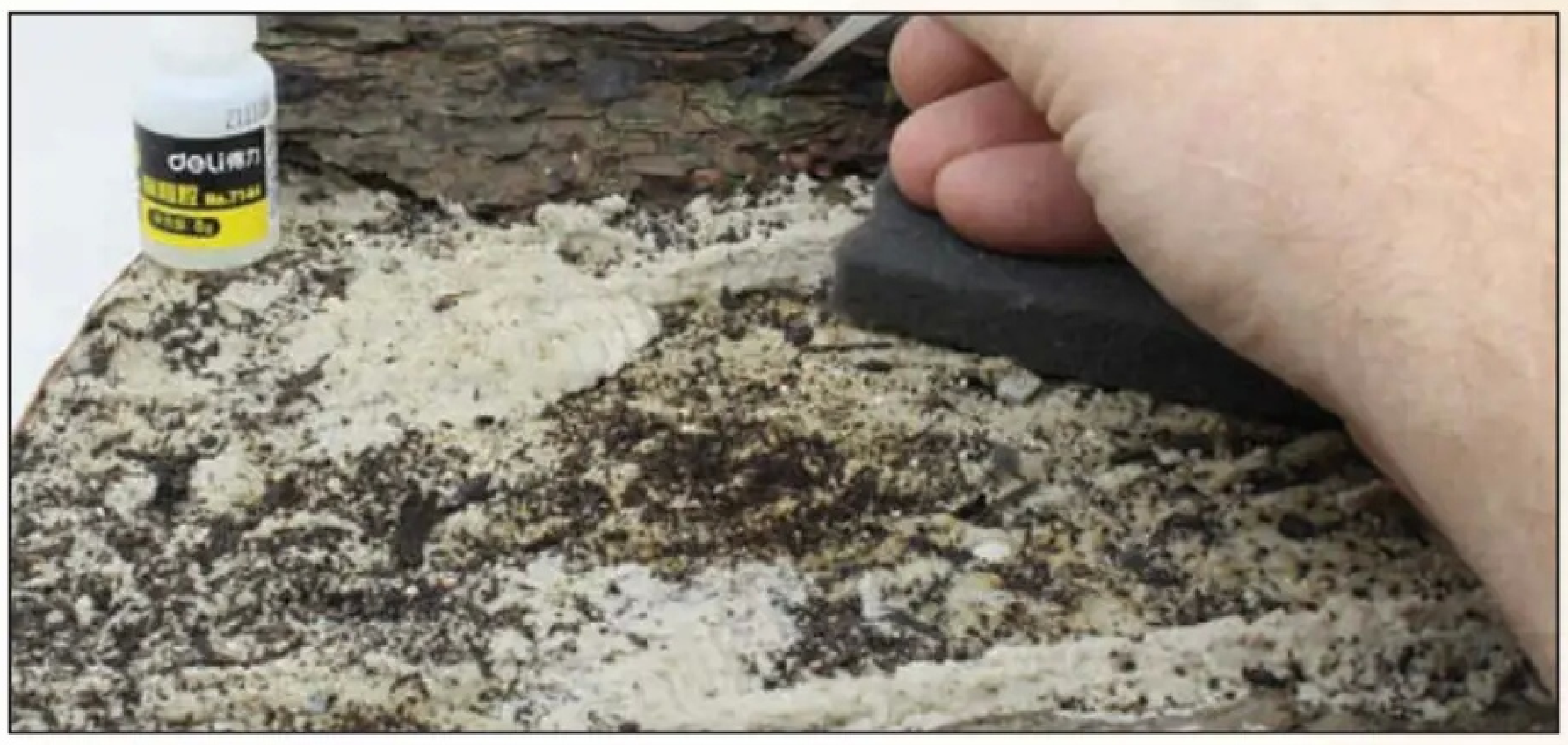
A thick layer of mud in the form of Wilder's "Textured Earth" is now applied to the segmented tracks. Static grass mixed in creates nice effects. The colour is relatively unimportant here, as everything will be painted later anyway.



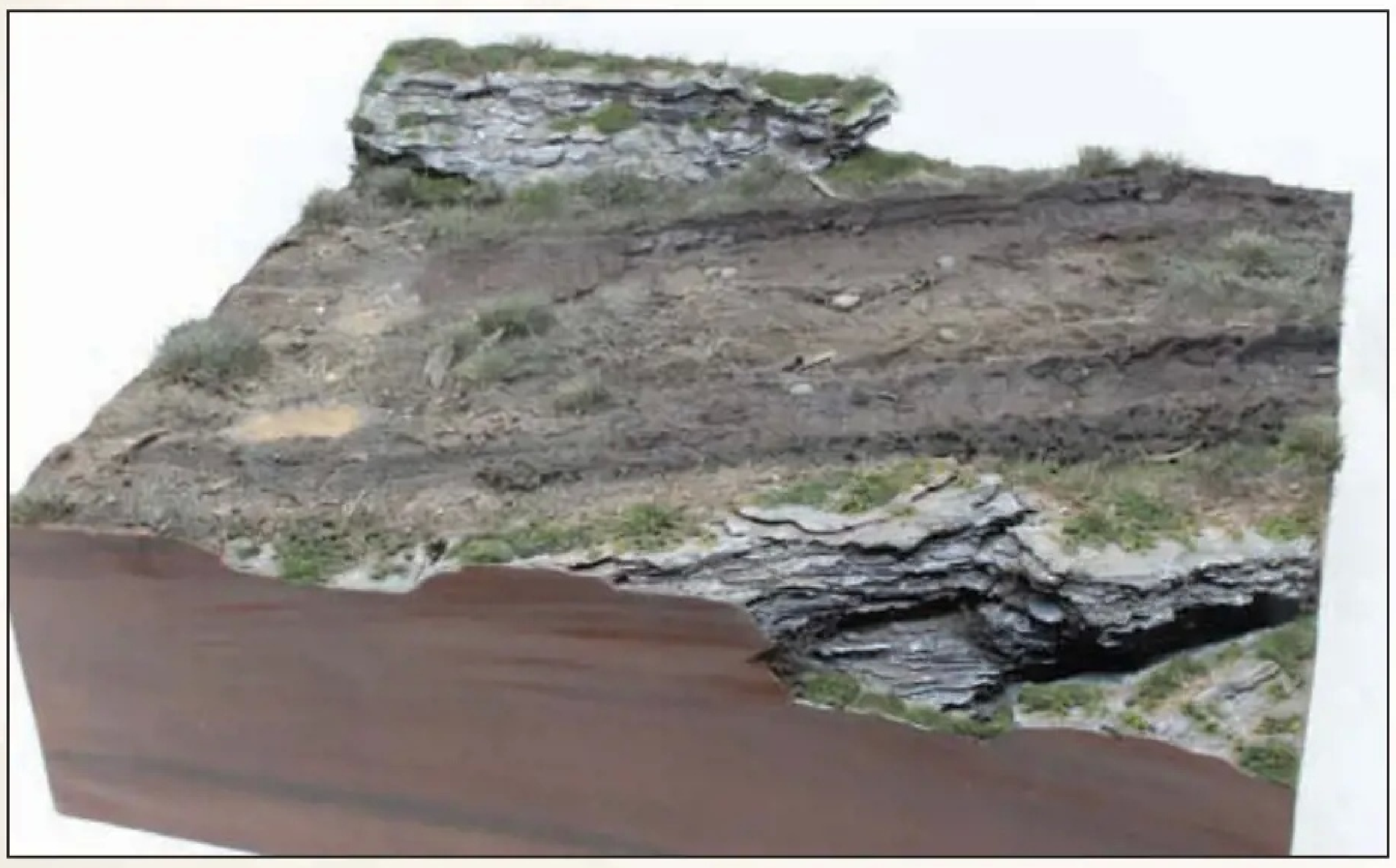
After the dirt has been painted to match the base colour, a few splashes are a must. Products from the "Splashes" series by Ammo of Mig, or simply thinned oil paint, are well suited for this.



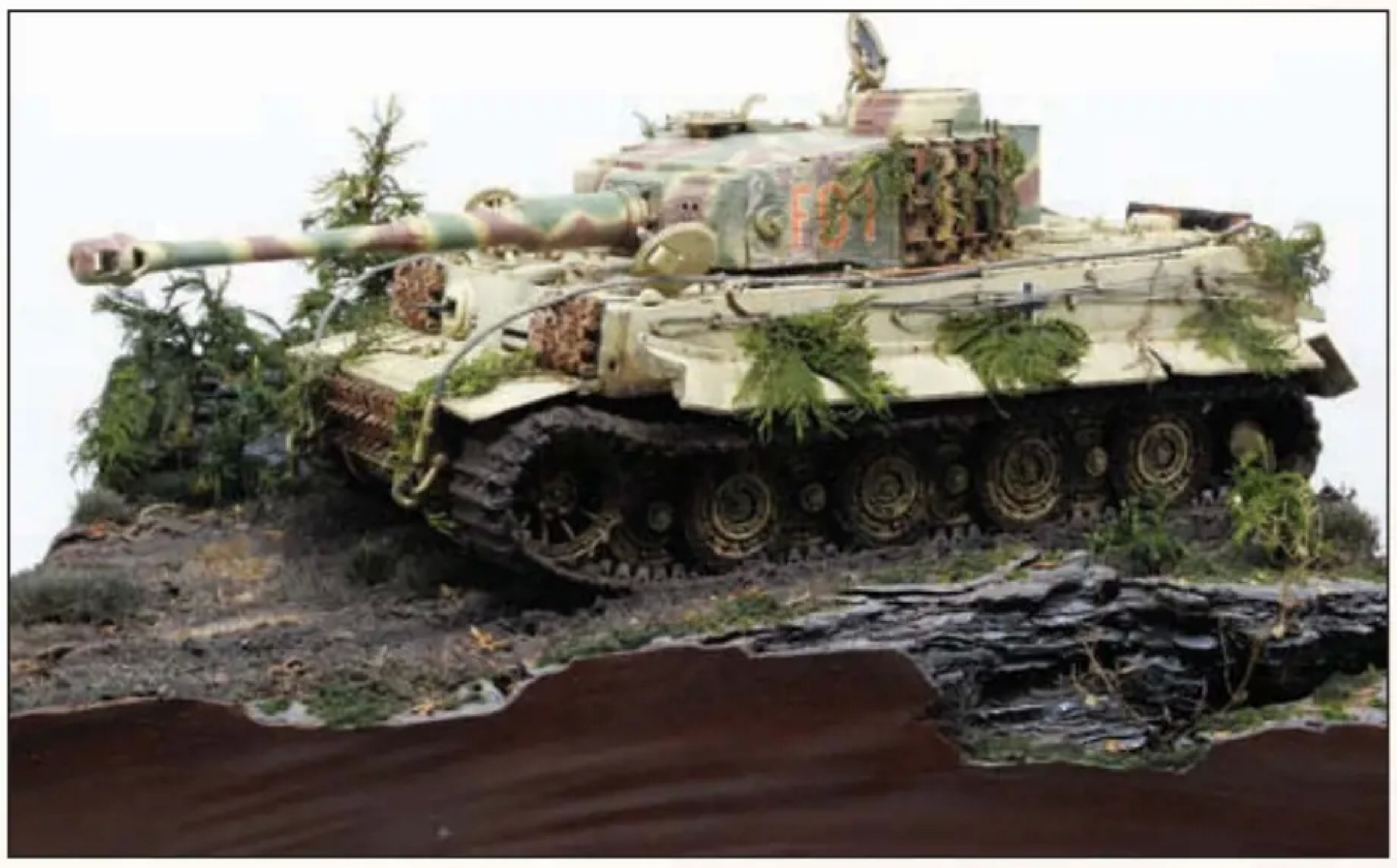
The base is intended to represent a forest path. Pine bark is ideal for creating the slate rocks. The still-damp base made of Molto wood filler is then sprinkled with fine soil.



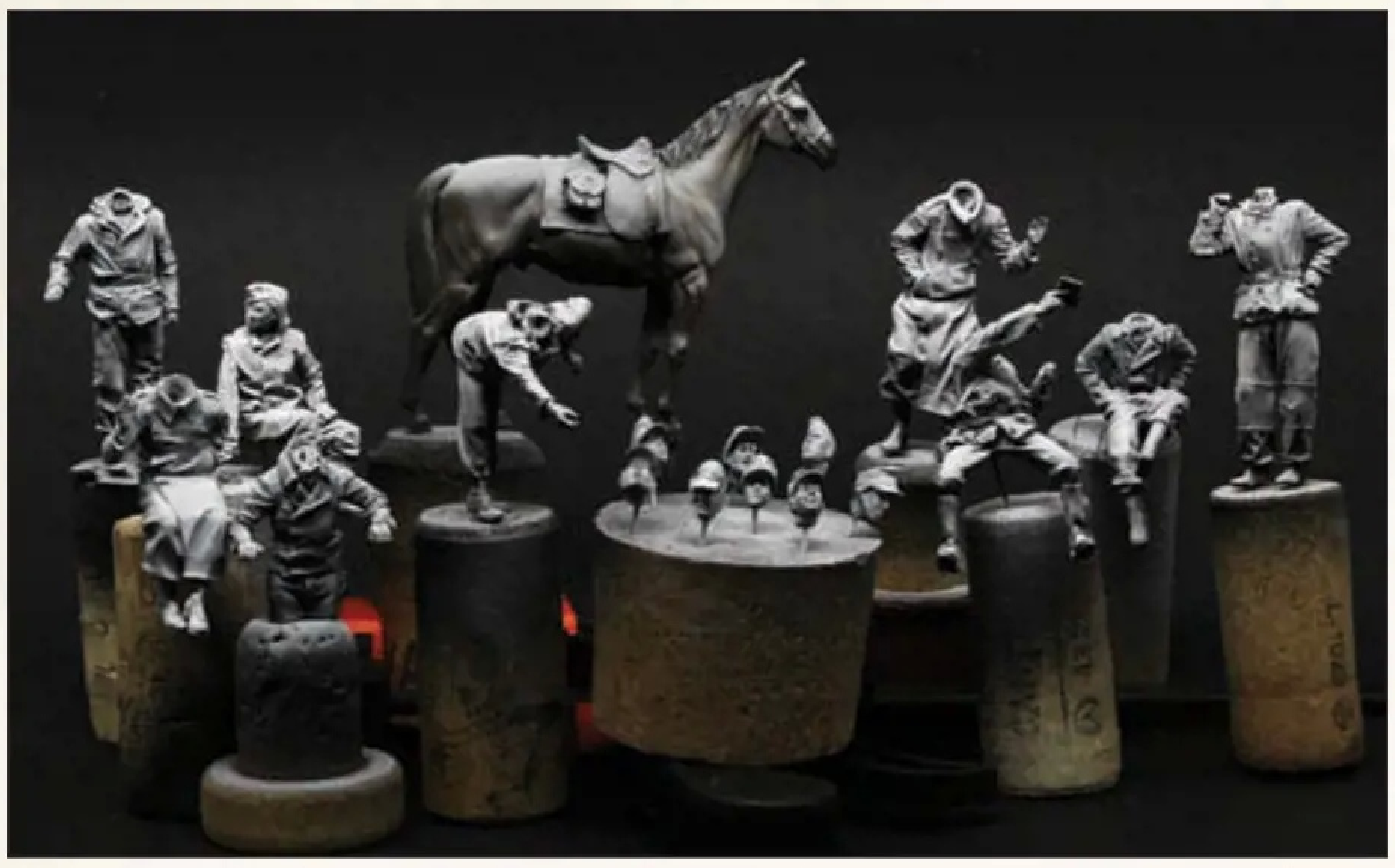
Using a little superglue, I glued small pieces of fine-pored foam to the rocks and ground. A little trimming with scissors creates a fairly realistic tuft of moss.



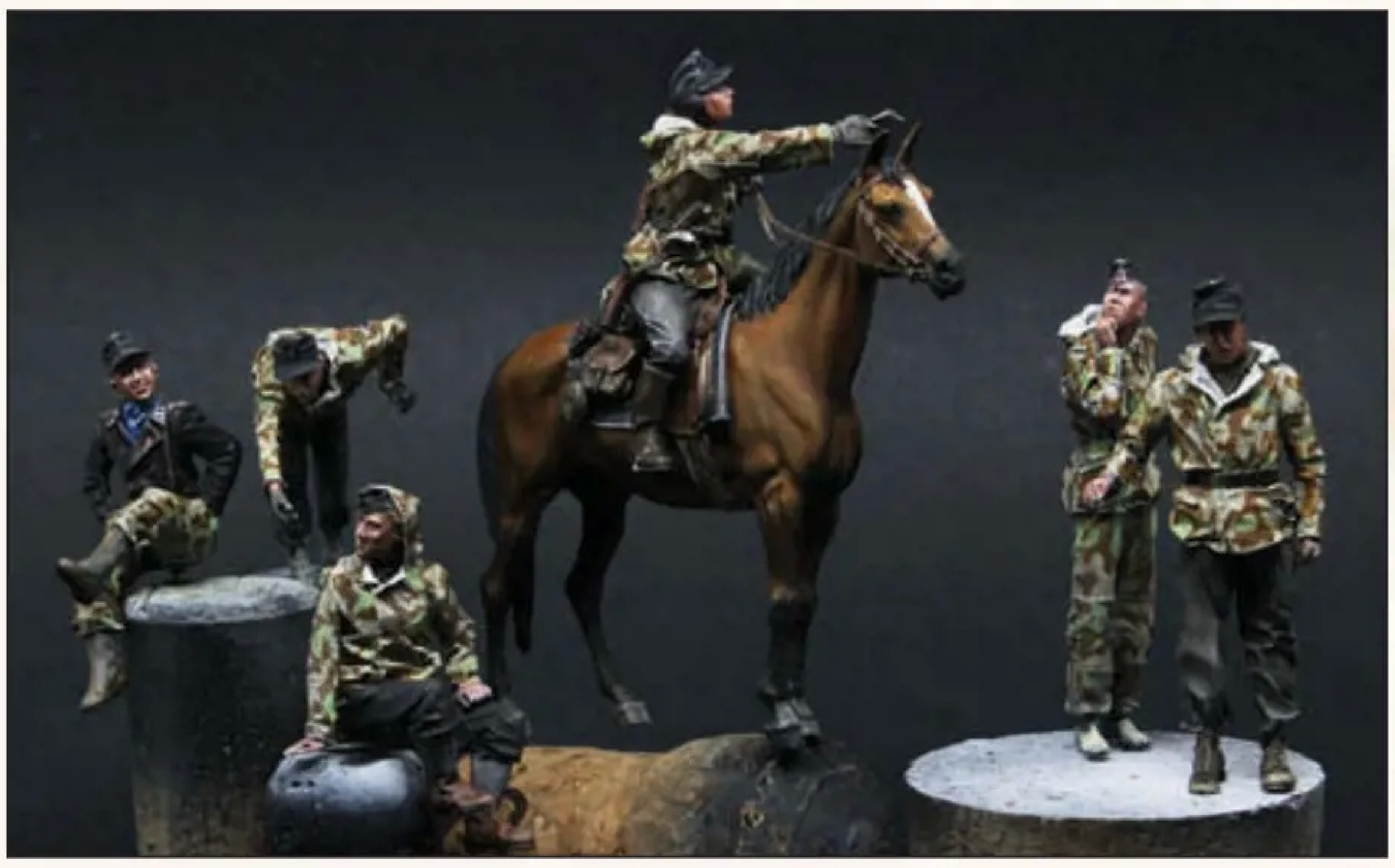
After further greening with grass tufts from Joefix Studios, the whole thing was painted. The puddles are created in several thin layers using Vallejo Still Water. A drop of paint can also be added.



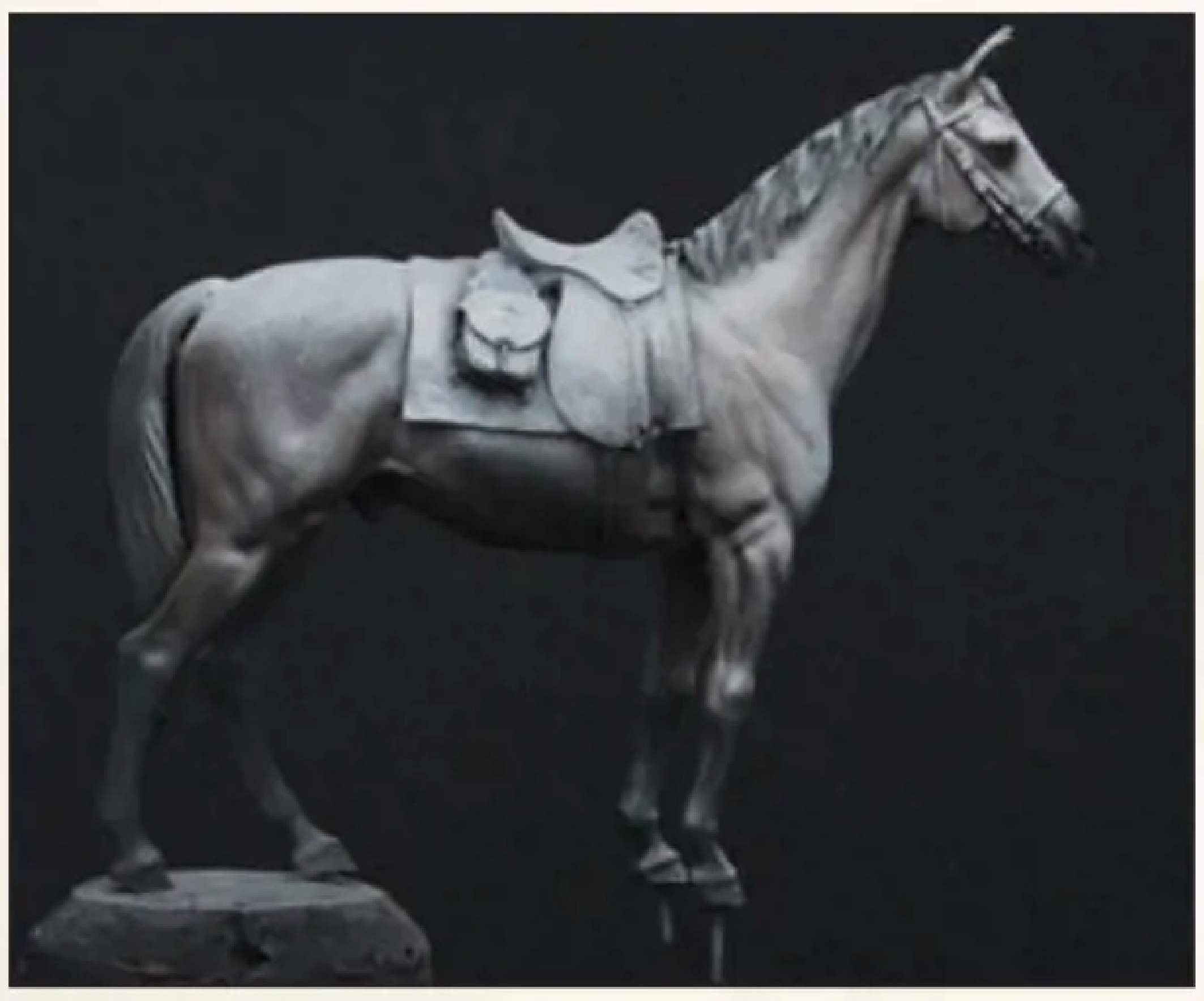
After placing the tiger, it must be adjusted to the ground with more mud. The 57-ton colossus naturally sinks slightly. Finally, a few spruce trees made of moss are placed on top of the diorama.



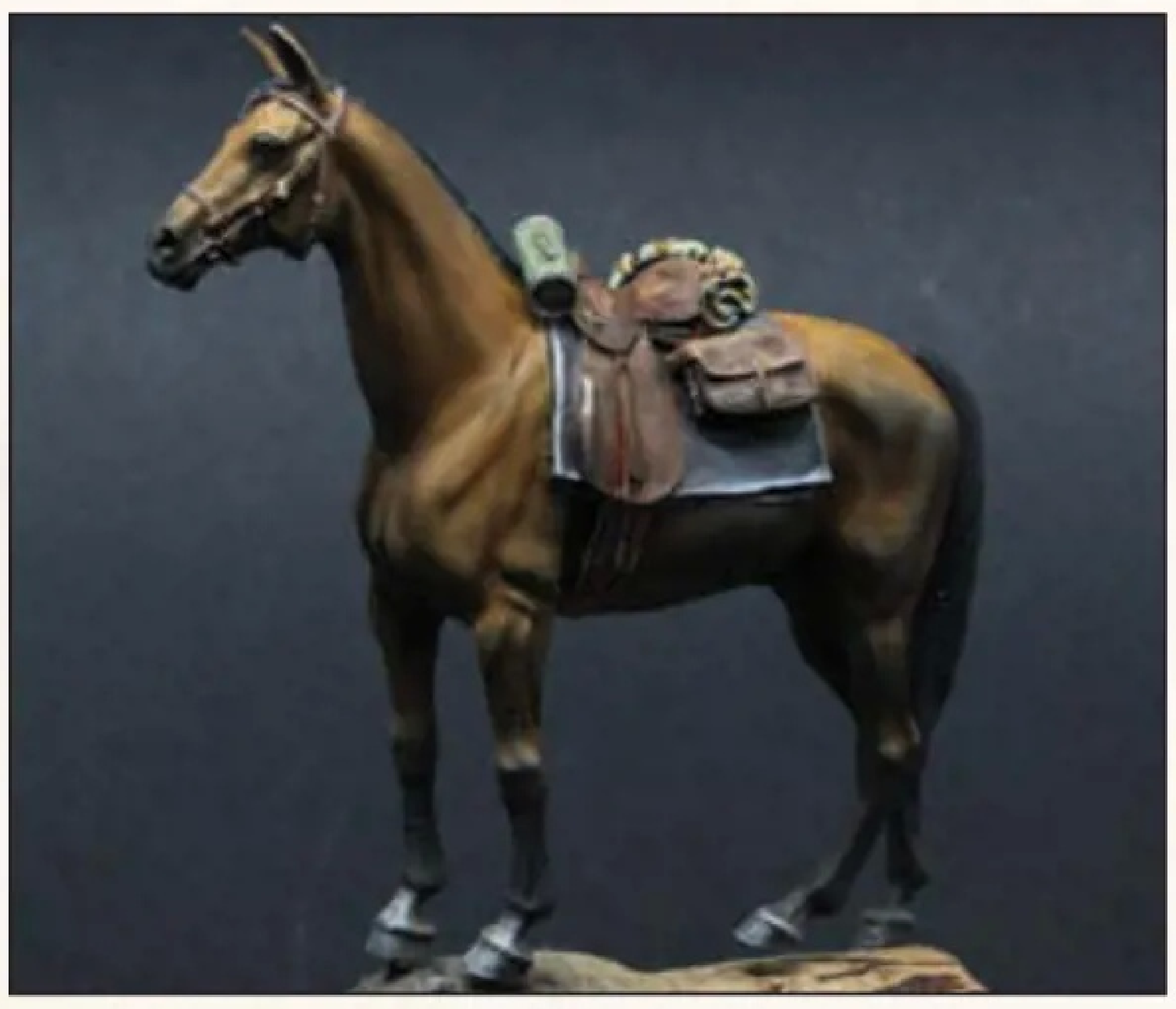
The S-3180 "Nashorn Crew" figure set from Stalingrad was retrained and adapted to the Tiger. A few other suitable figures were also painted. A little variety never hurts.



Realistically painting camouflage schemes is always a special challenge. The best way to do this is to find a reference photo of this reversible jacket in splinter camouflage and try to imitate it. Always thin the paints well.



The example of the horse shows the procedure. After the black primer, a white spray coat follows, directly from above. This gives you a first impression of where the highlights and shadows are.



The brown tone should then be applied in several thinned layers, using a translucent finish. This preserves the previously created highlights and shadows. In this case, Vallejo's "Flat Earth" #70983 was the base colour.

The further details were painted in the same way using the respective colours. After placing the rider, the reins, made from thin strips of tape, could also be adjusted.

Headphones were also placed in the hands of the standing figure. Such small details can make a scene appear significantly more harmonious.

Since the driver's and radio operator's hatches are open and not occupied by figures, a rudimentary interior was subsequently added. The viewer shouldn't just find a gaping void when looking through the hatches.

Conclusion

With release No.2202, Takom has a first-class Tiger kit in its range. Anyone who specifically wants to build a Fehrmann Tiger will be well served by this kit. The mix of "early" and "late" models, with and without Zimmerit, and with and without camouflage, allows for a great deal of speculation about these Tigers. Especially since the sometimes rather poor black and white photos often raise more questions than they answer. But that's precisely what makes them so appealing to modelers.

Takom Kit: 2202

Aftermarket:

Voyager Model, AP031, Tiger I early/mid/late Side Skirt.

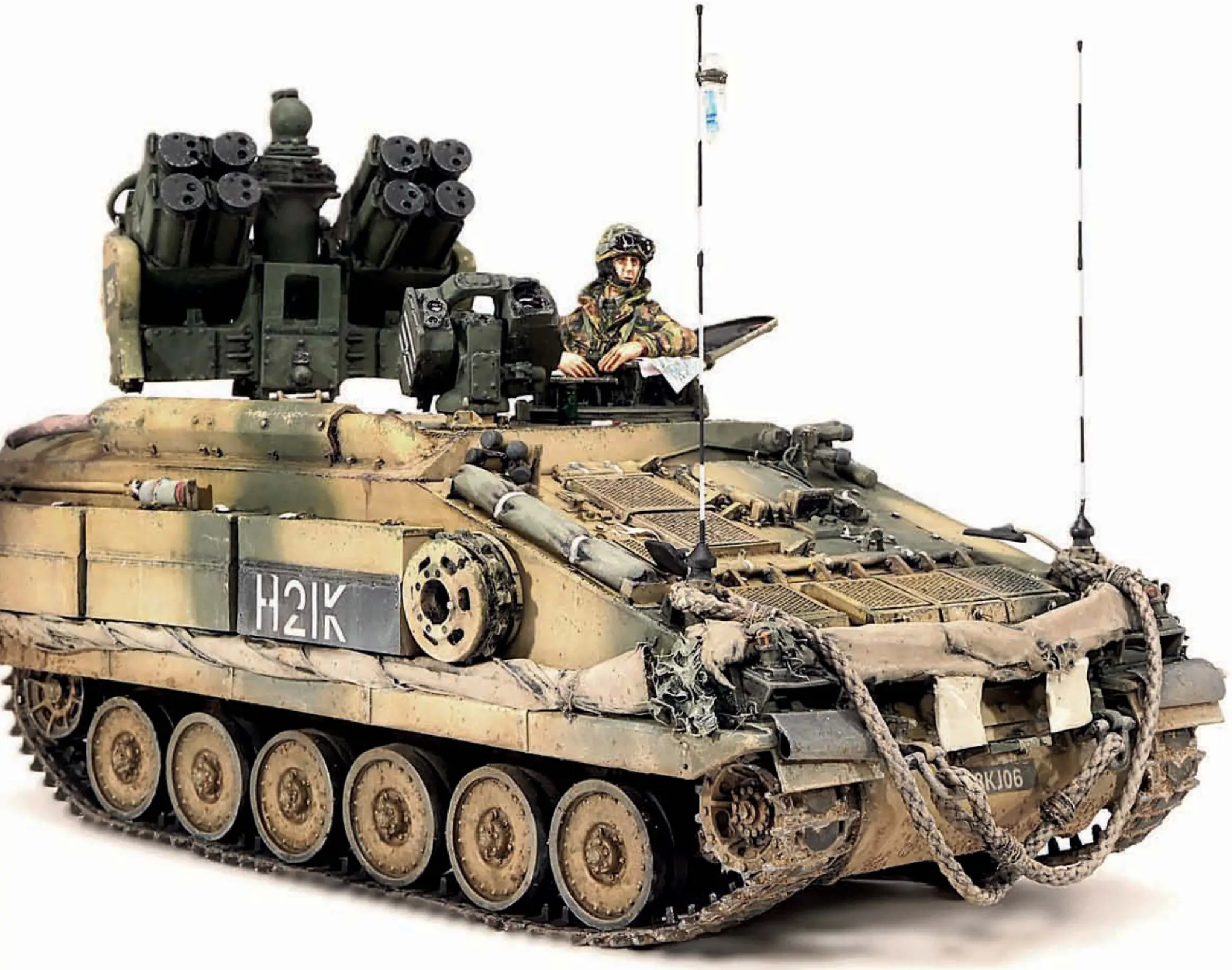
ABER, A35A012, Karaya, TCM00, Tow Cable

Figures: Stalingrad, S-3180 Nashorn crew and mounted dispatch rider

F01

F01

LAST ORDERS



The Stormer is a development of the Combat Vehicle Reconnaissance (Tracked) (CVR(T)) made longer with an extra wheel station on either side. This allows for numerous variations including the High Velocity Missile (HVM) variant, which is armed with eight ready-to-fire Starstreak missiles for Short Range Air Defence (SHORAD); a further nine missiles are stored inside the vehicle. The system is fitted with a roof-mounted Air Defence Alerting Device (ADAD), providing target detection and prioritisation. A panoramic weapon sight is located at the front of the vehicle. Stormer HVM was introduced in 1997 and has deployed to Iraq. Stormer HVM is still in service with the British Army and several platforms have been donated to Ukraine in support of the war effort.

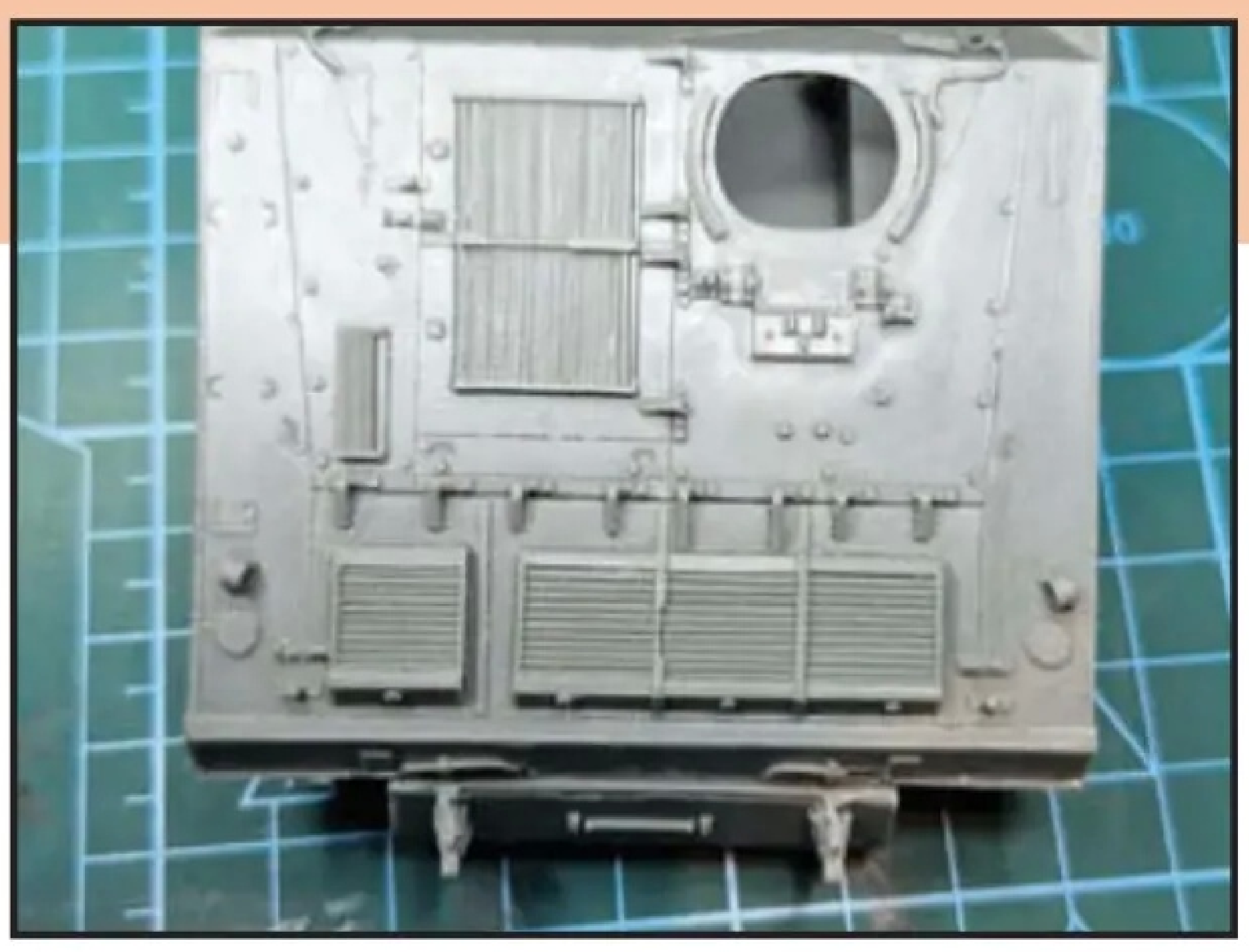
My relationship with the HVM started many years ago, as an inexperienced younger modeller I tried to put the 1/35 Accurate Amour model together with a small tube of supermarket superglue! The roadwheel arms and tracks repeatedly broke and the model soon ended up stuffed under my bed in the box of frustration and doom – to be binned later when I left home. Fast forward many years to when I was serving in the British Army, I was tasked to investigate if the HVM could be fitted with a thermal imager. This was part of my bachelor's degree as a project on my REME Artificers course. I was lucky enough to get to watch the HVM firing at targets over the coast of Wales. The missile gets to Mach 2 speeds almost instantly from the tube, so sounds like a gun being fired. A second later there's a puff of smoke many miles away as the missile strikes its target! In 2008 I again tried to build the Accurate Armour kit, but this time dropped it whist walking out to my garage to prime it. Parts went everywhere and I gave up on it again...So, third time lucky..?

STORMER IN A TEA CUP

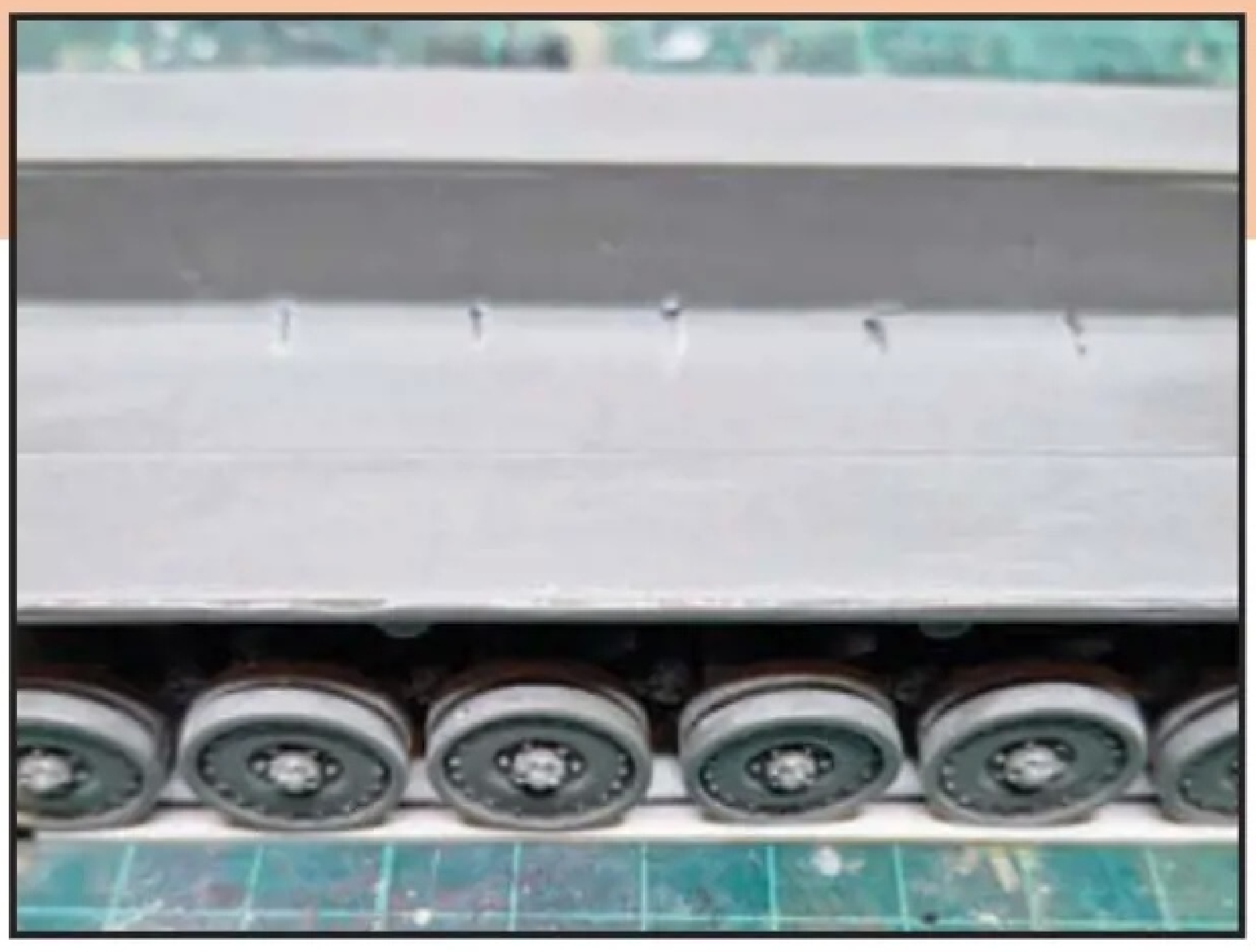
H21K
5275
88KJ06

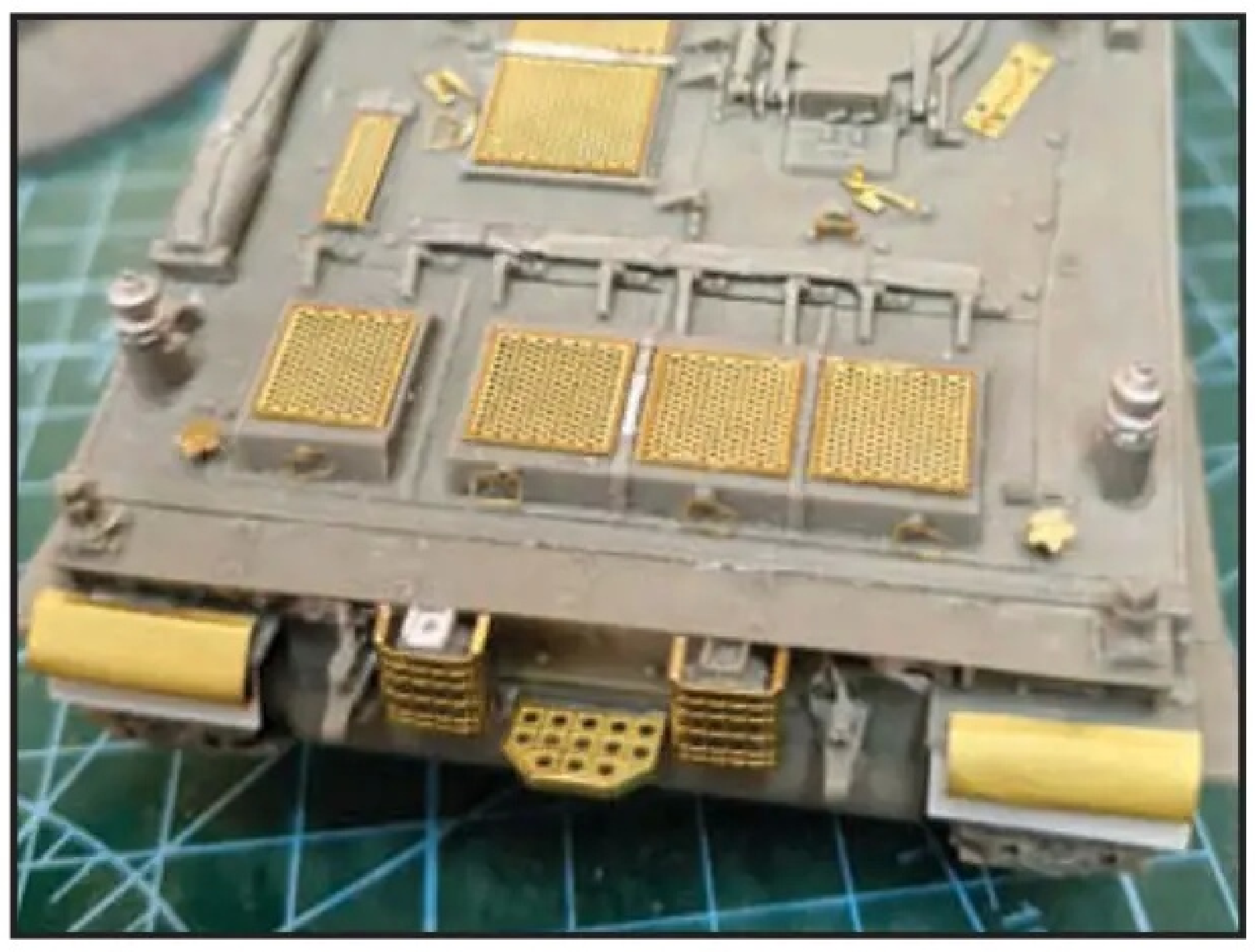
IAN BARRACLOUGH

builds something a little more compact than usual


Hull top and bottom glued together. The hull top had some slight damage that was easily repaired

Roadwheel arms with brass rods added for strength. Also note the jig added to the hull bottom to ensure the correct ride height


The jig was fitted with a metal rod to ensure the correct alignment of the wheels


Etched brass parts add delicate and fine detail around hull front area

The large bin on the left hand side was self cast, using the AA part as a master

Three large bins on the right side, as per more modern reference material

I've built quite a few of the AA CVR(T) resin kits, so know that the roadwheel arms and tracks are a real weak point. I drilled out the very short mounting points on the hull and fitted brass rods into the locating lugs on the arms. This ensures a much more secure fit. I also built a jig to sit underneath the hull tub and take the weight of the model whilst the arms and wheels were glued and setting. I added a length of piano wire to the jig the sit between the double roadwheels and assist alignment – this jig was cut off later. I used the kit resin tracks. These aren't the best, but most of the track run is covered by side skirts, so I was content to use them. These need to be lightly heated to shape them around the sprocket and idler, something I did with hot tap water (please take care when heating resin).

If you've built any of the AA CVR(T) kits you'll know the build process – a substantial (and heavy) hull tub, with a hull upper that glues to the top of the hull tub. My hull top was slightly warped, so I had to clamp it to the hull tub whist glueing, although I still had a 1mm gap at the front – something I was confident that I could hide later. There was also some damage and missing detail although this was easily repaired.

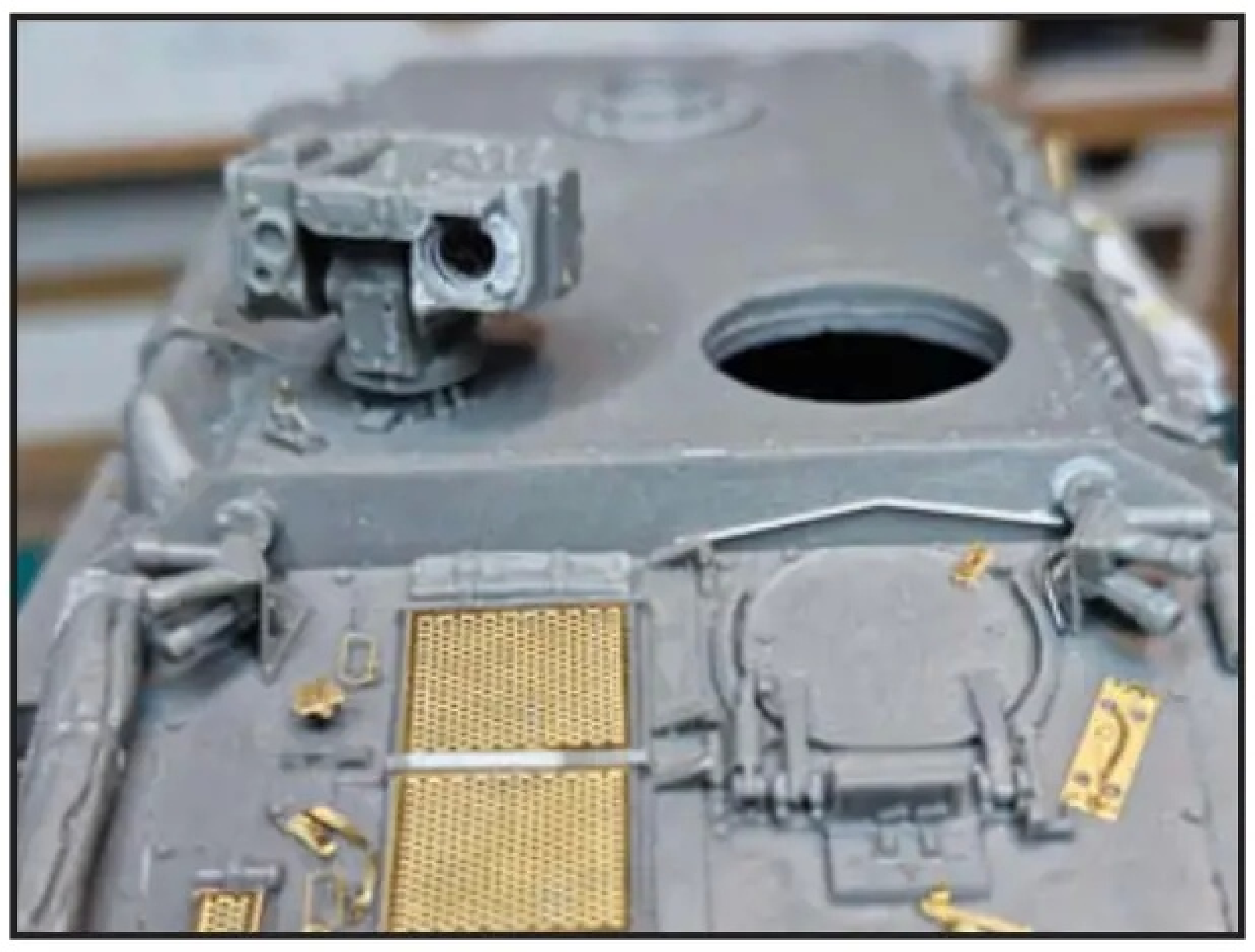
Checking my reference, it would seem that AA may have had access to an earlier model when measuring up. Later models have different storage and bin configuration – mainly 3 large, covered bins on the right and side, one large bin and a mesh open bin on the left-hand side - and a small bin on the rear left.

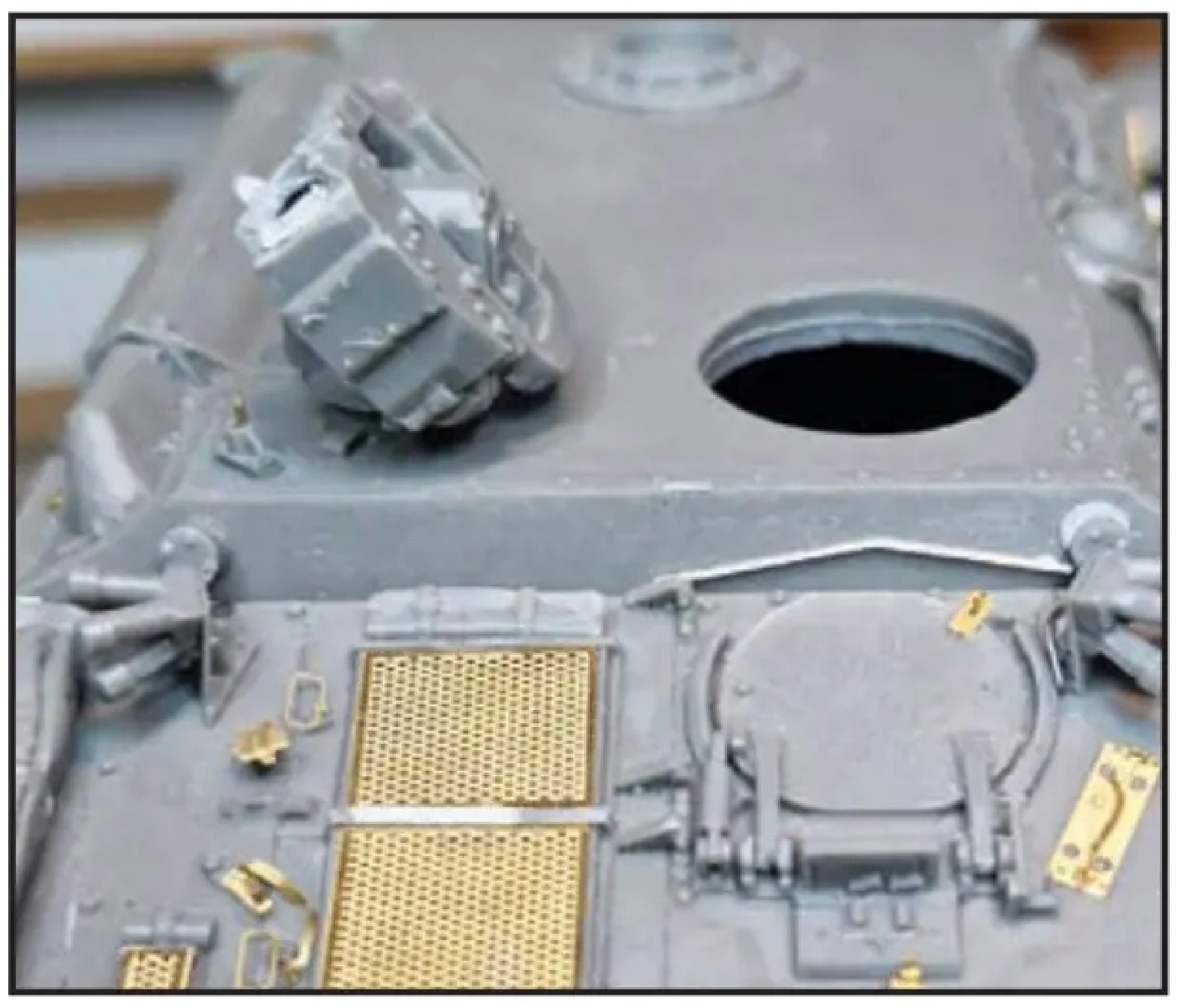
There're 3 large bins in the kit, but I needed a fourth, so made a latex mould of one of the AA bins and made a cast from 2-part resin. For the small bin at the rear, I built up the complex shape from plastic stock.

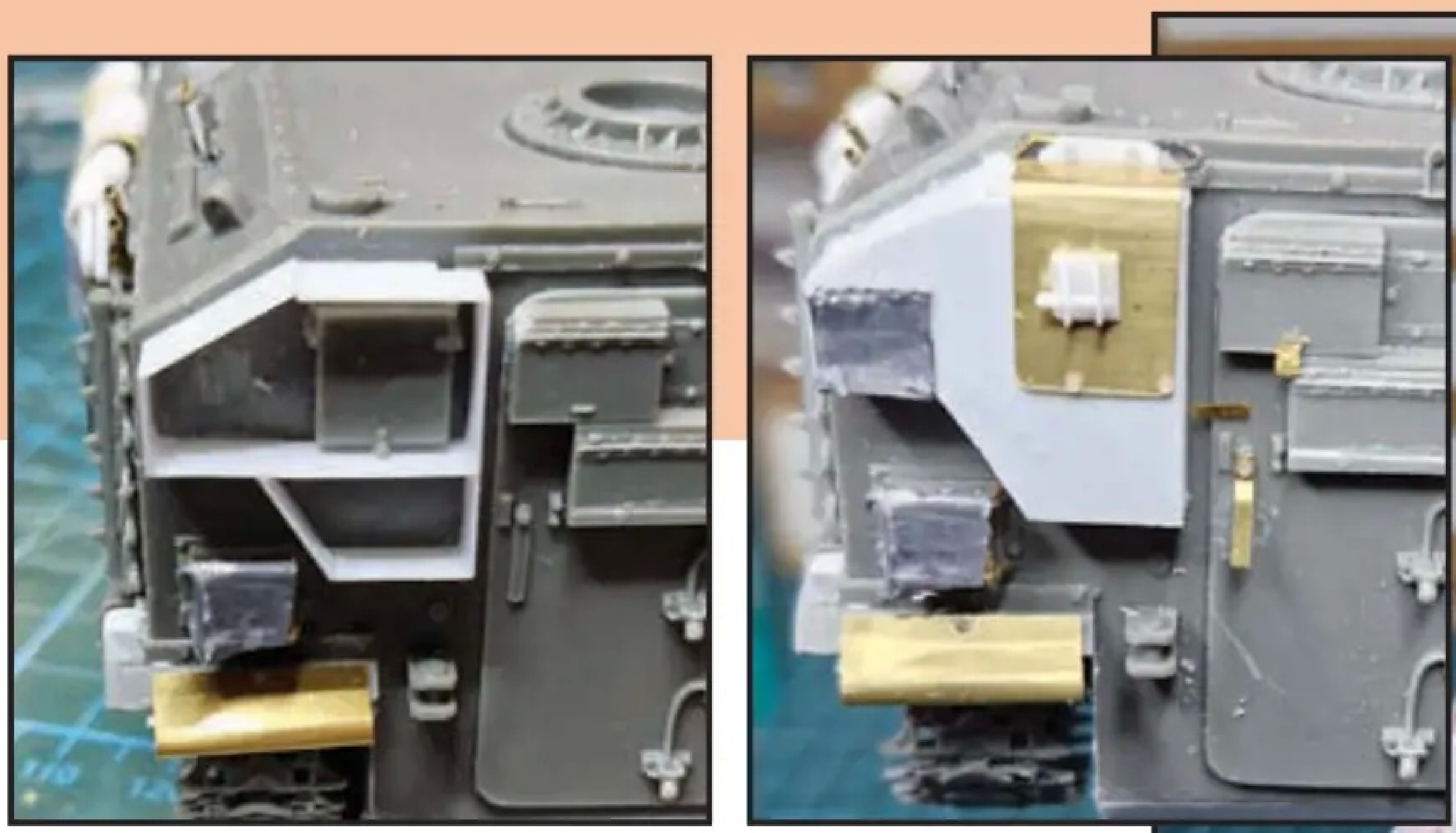
The AA kit represents the tracker with the cover closed. In reality, the glass lens is delicate and very expensive so is usually covered. When in operation this cover is removed, and the large bulbous lens is obvious. I ground off the moulded resin cover with my multitool and drilled out a round opening, into which I fitted a 4mm craft 'clear pearl'. I'm afraid the AA instructions aren't the greatest in this area and I had many frustrating moments trying to find reference as to where some of the smaller parts went.

The launcher is beautifully detailed although very delicate. With some careful drilling and addition of some brass rods, the left and right launchers can be made workable, something I did as I wasn't sure what configuration I wanted the final model to be displayed in.

My model was missing the commanders cupola. I used a free 3D print file to print off various sizes to ensure the correct fit

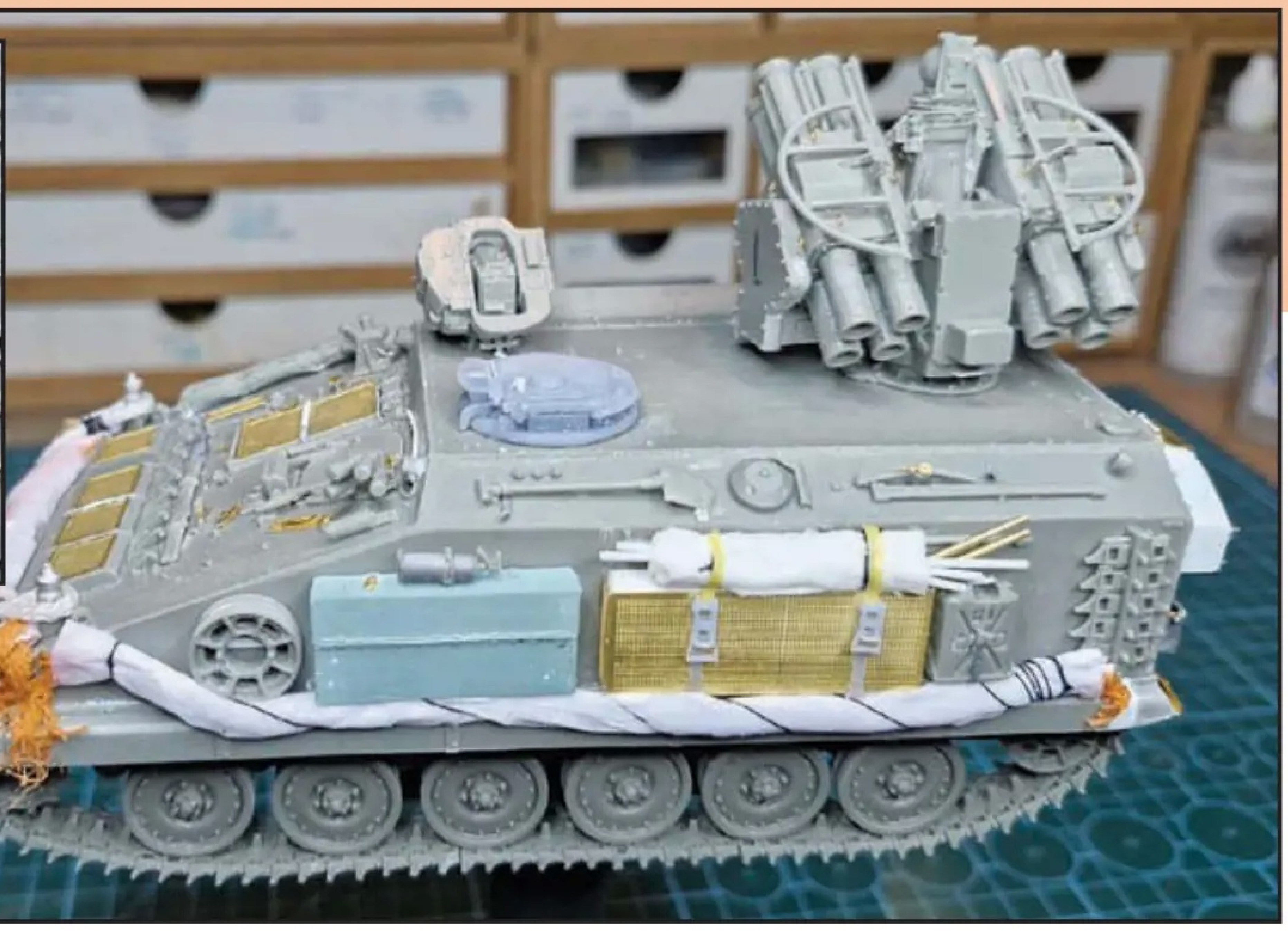

The tracking device with open tracker lens



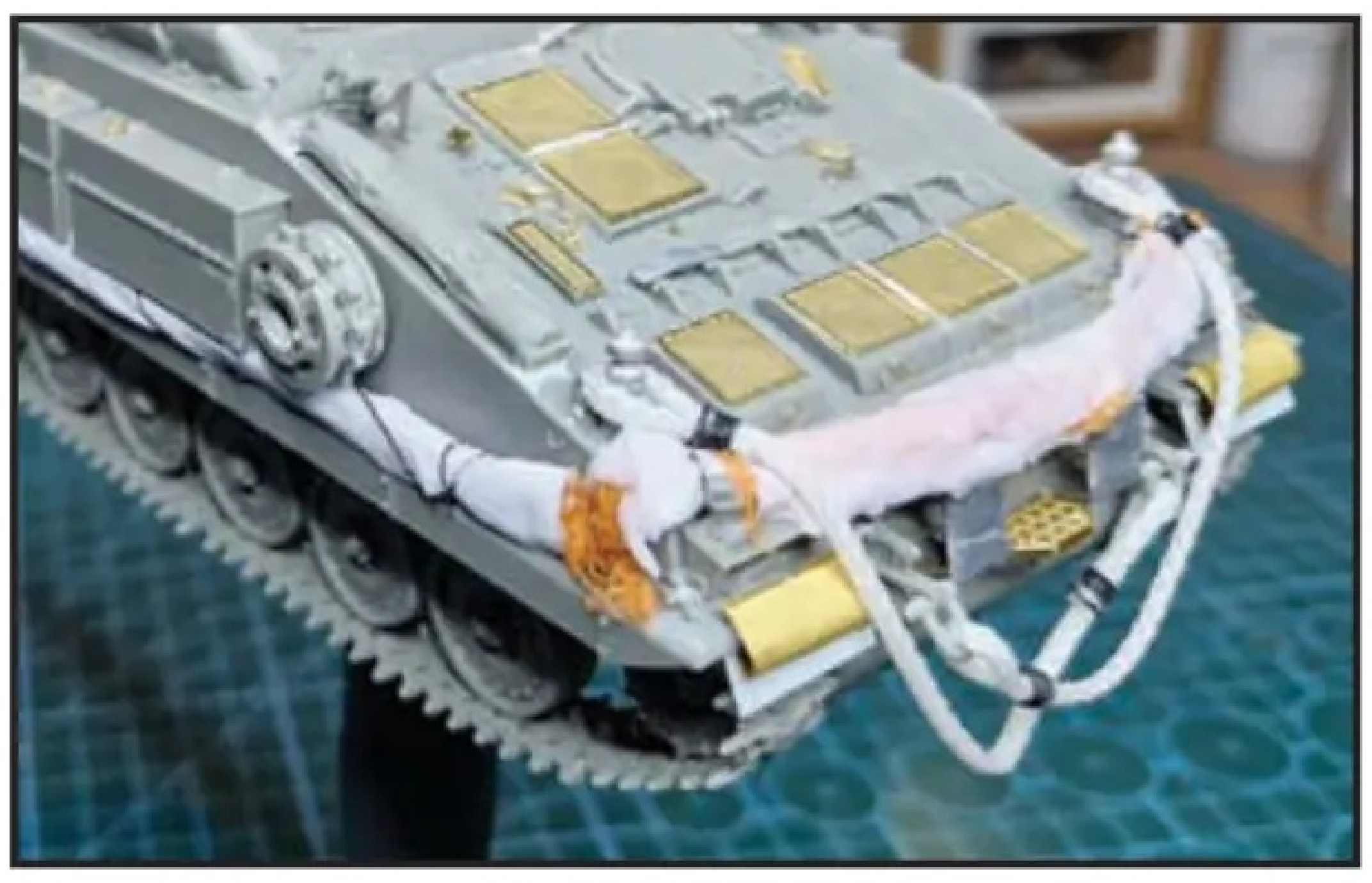


The smaller rear bin is quite complex in shape, built up from plastic stock

To finish the build, I added some stowage in the form of tarpaulins and camouflage support poles. I also added rolled anti-IR material skirts that are often seen rolled around the hull above the tracks. When stopped, these can be quickly and easily folded out to cover the tracks. Usually if a vehicle in the field stops for even a few minutes these skirts are deployed to beak up this distinctive feature. I also noticed that the crew of one of my reference images has added cut up foam (from a bed roll-mat) around the red fire extinguishers to hide the red, something that I replicated with thin lead foil, later painted grey.

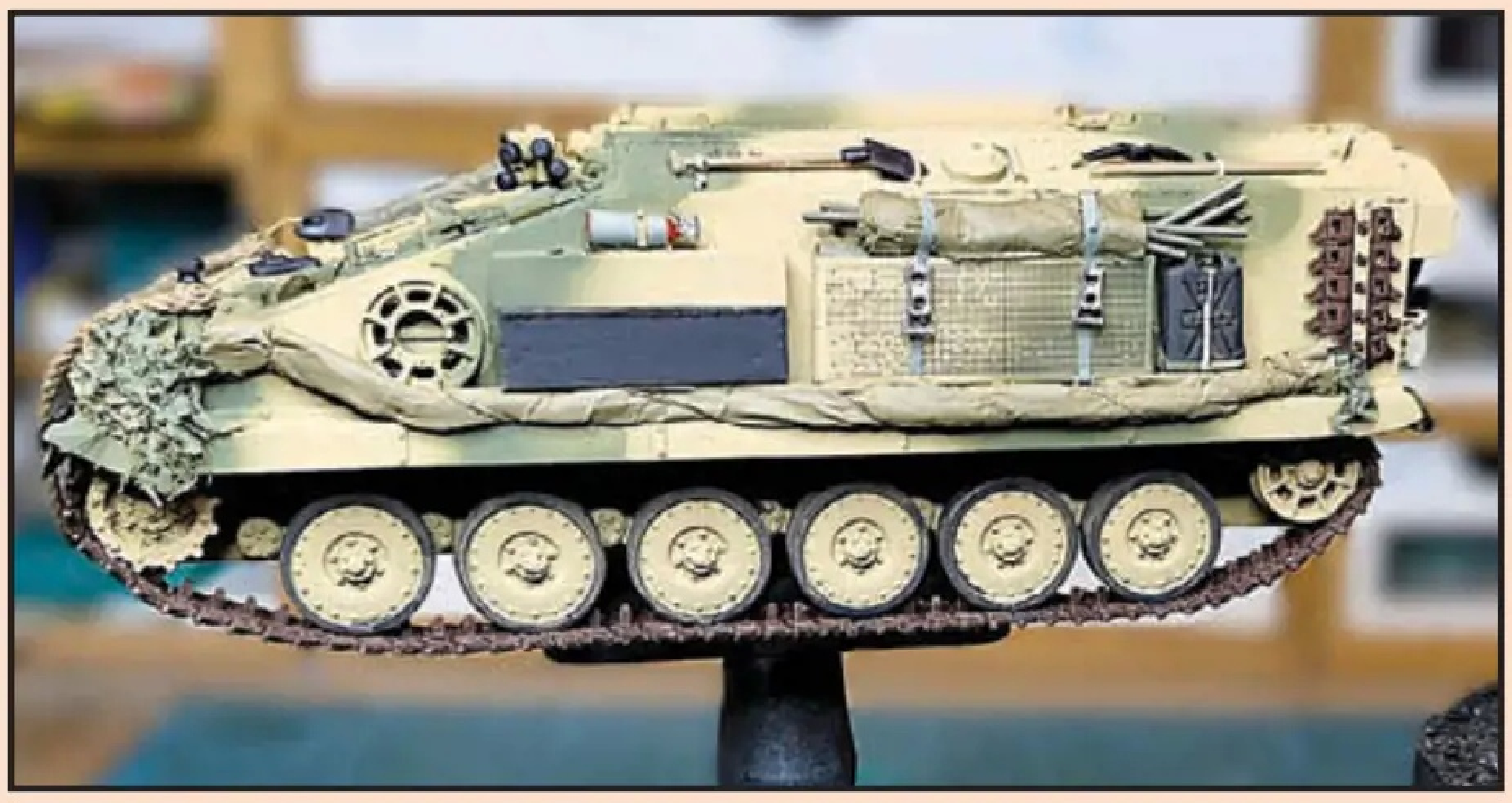


Extra stowage and rolled tarp covers, made from paper soaked with VMS Paper Shaper



Front kinetic tow ropes made from household light pull-cord

PAINTING

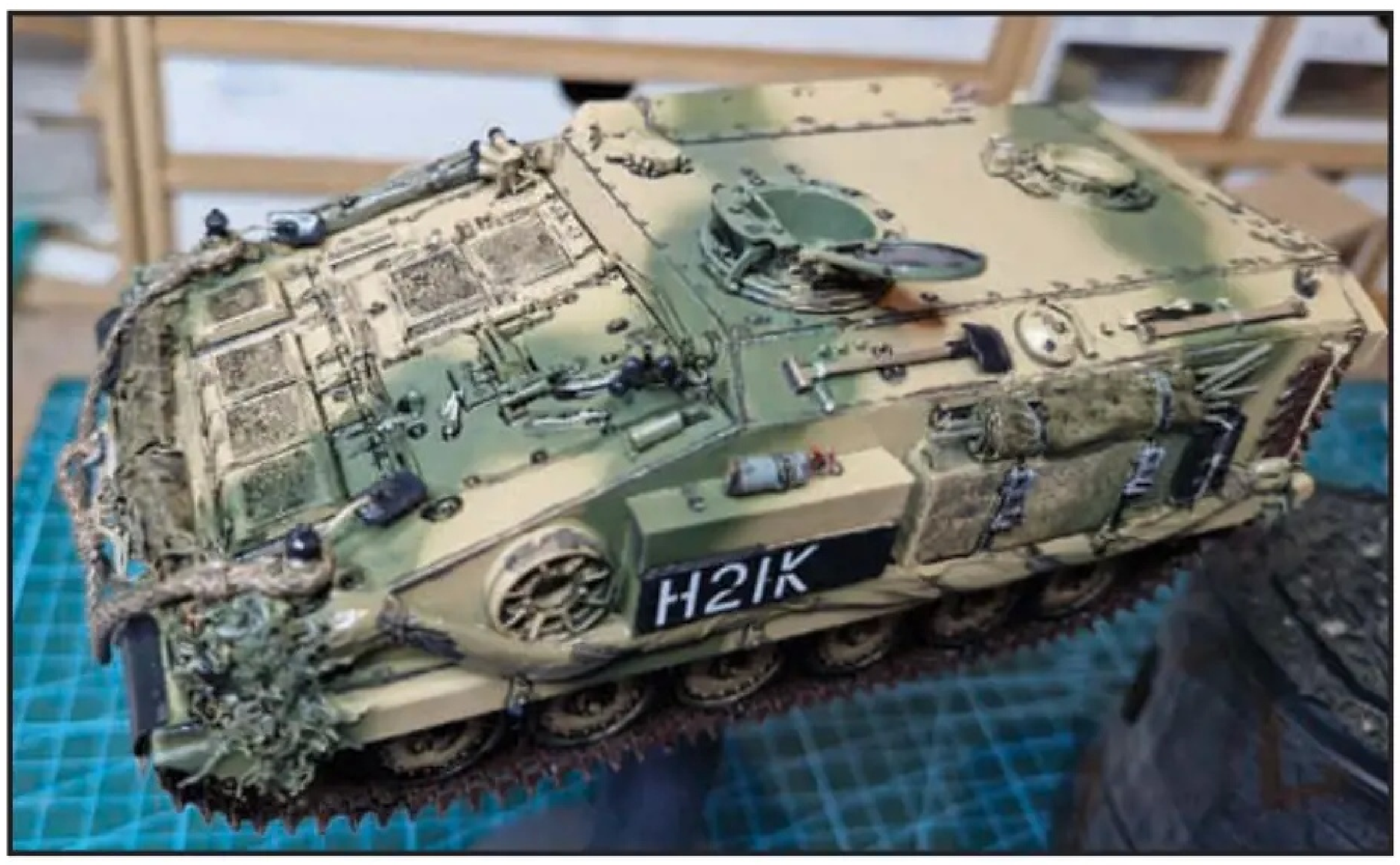


Base colours on and testing the fit of the commander

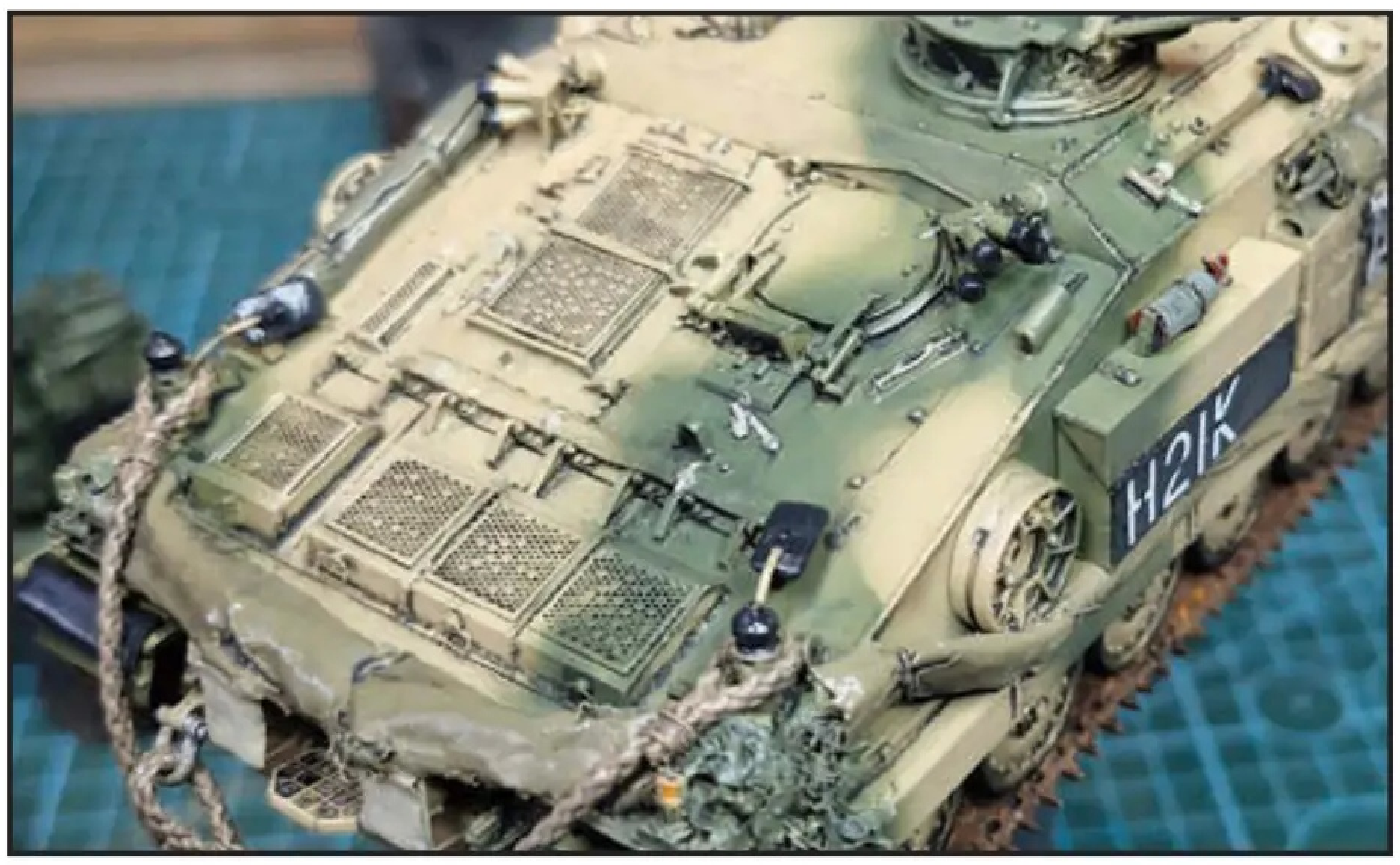
For painting I wanted to depict a vehicle in the unique green and sand coloured scheme of the British Army Training Unit Suffield (BATUS, Canada). I mixed up some Tamiya dark yellow/desert sand and airbrushed this over the top of a grey/white primer coat. I then clouded a lighter coat of the same mix, concentrating on upper surfaces to highlight these. For the green I airbrushed Vallejo Russian green and again, highlighted with a lighter coat of the same. The prescribed pattern should be 1/3 green stripes to 2/3 sand, with the 4 corners being covered in green – but I'm yet to find any reference that this pattern is followed. Prior to adding decals, I masked off some rectangles on the side and rear bins and airbrushed these areas with Tamiya black rubber. In BATUS this allows the markings to be quickly painted over in-between units rotating though the training unit.

I gloss coated the model with a water-based gloss floor cleaner and added decals from the spares bin (no decals are supplied in the AA kit), before another gloss coat.

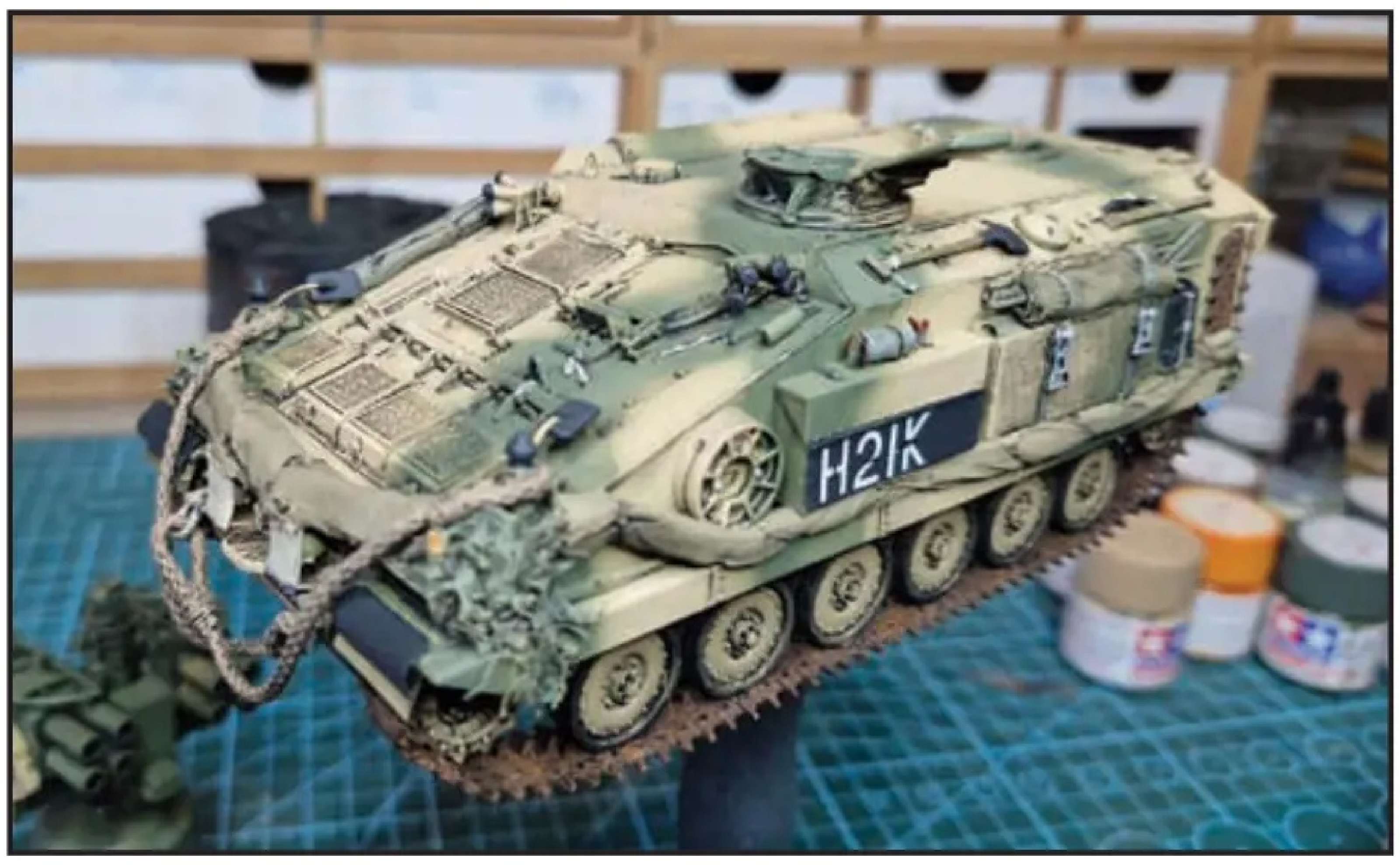
Markings from the spares box applied over a gloss clear coat.



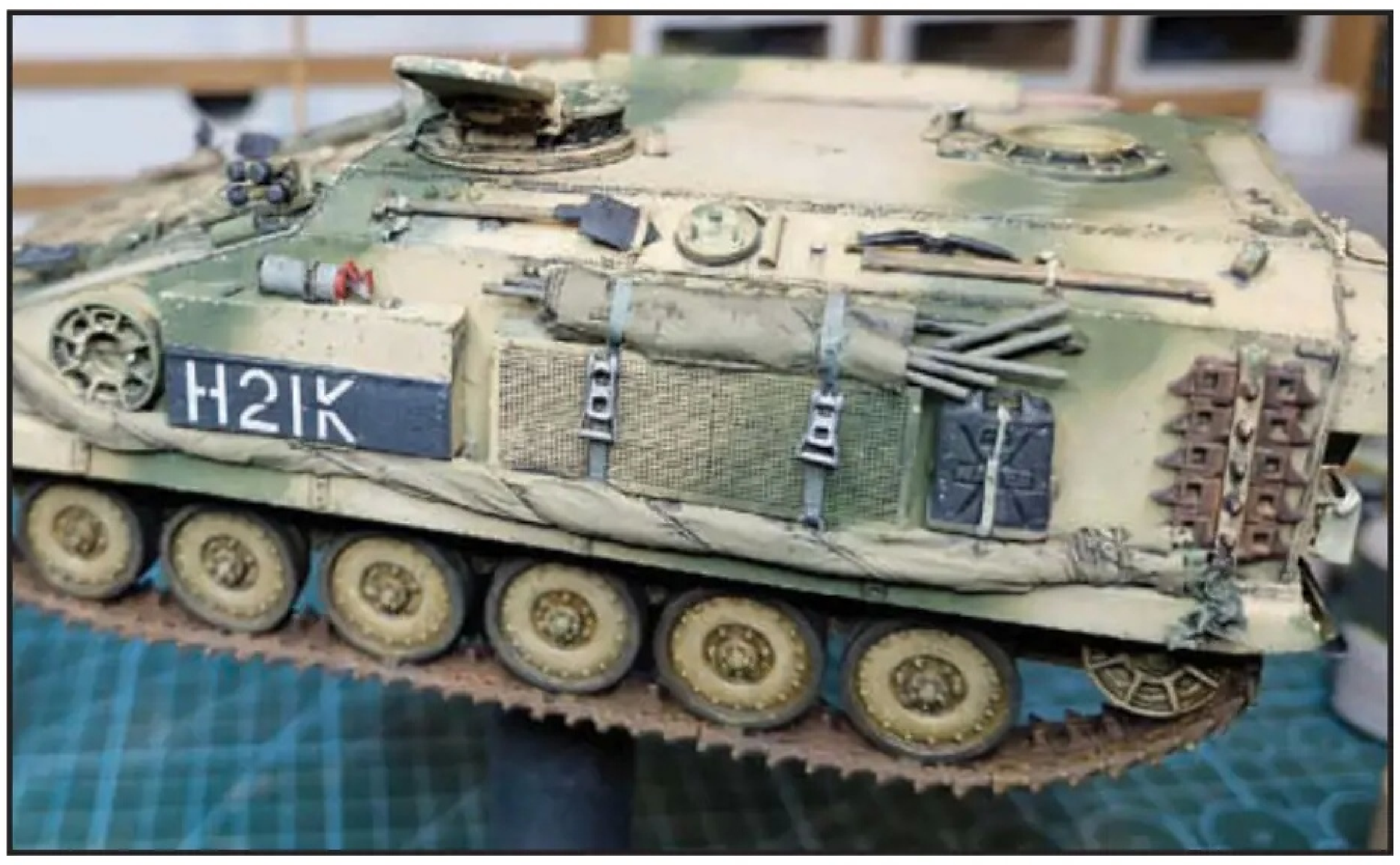
A dark contrasting 'pin wash' was added with heavily thinned oil paint around smaller details.



Excess wash is removed with a clean paintbrush or cotton swab.



Coming to life with some highlights added with lighter oil paint.

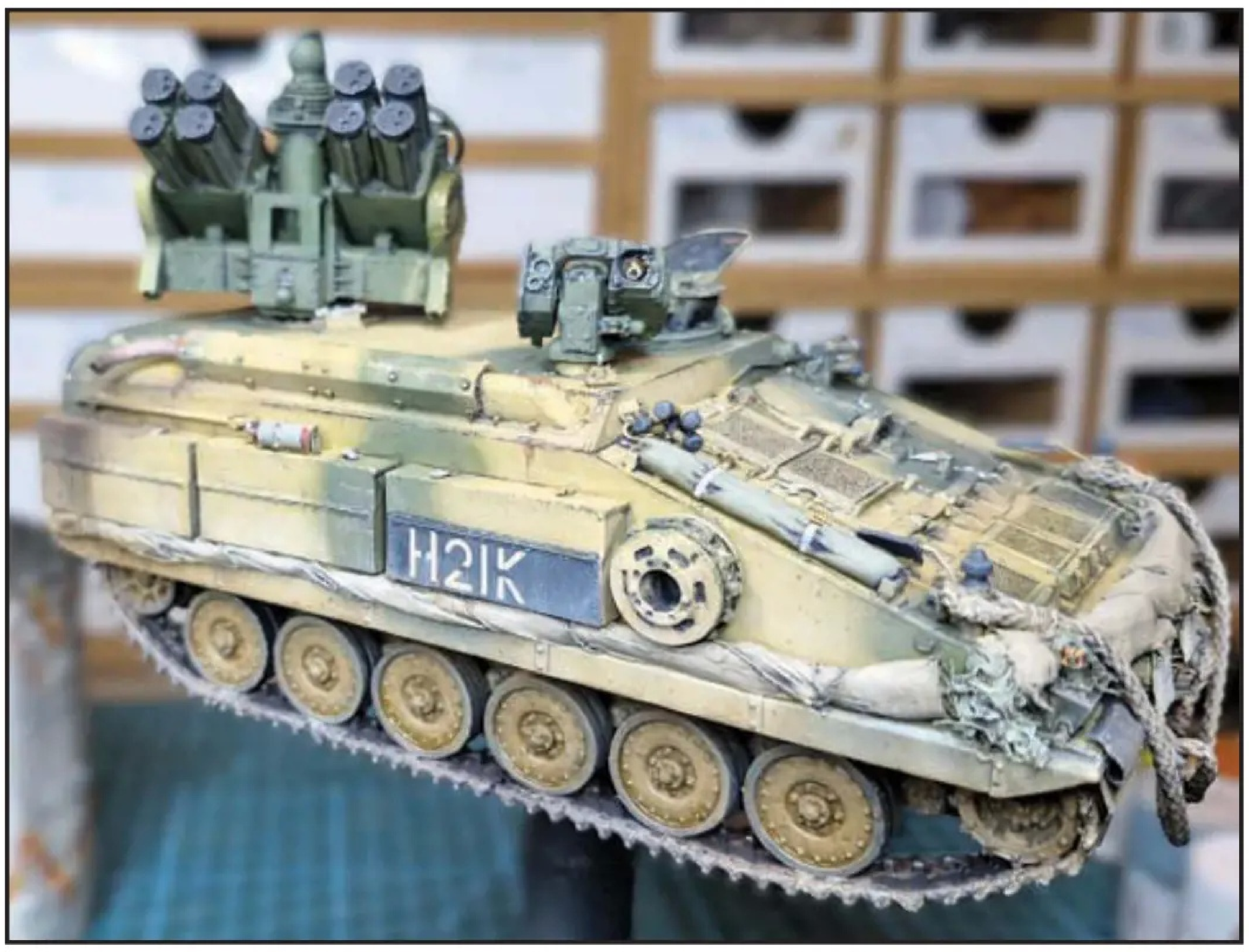


Adding chips and scuffs with a sponge lightly tapped in the base-colour green.

Next came a pin wash with thinned dark oil colours; after a few hours any excess was wiped off before giving the model an overall matt coat. Using Naples yellow and faded green oil paints I added small dots over the sand and green base colours. These were blended in using thinners and add a bit of variation to the base camouflage colours. I left the ADAD and launcher tubes in modern British Green as per many of my reference images.

I added the excellent Clansman radio antennas from Scorpion Miniature Models – to the right hand one I fitted a resin clear plastic bottle. In BATUS the crews put blue chemical lights (Cyalume sticks) inside them at night, a safety requirement of the ranges. The bottle, facing downwards can then be opened and the Cyalume replaced as they drop out. I represented the Cyalume by drilling out the top of the bottle with a 0.3mm drill bit and then filled the drilled cavity with Tamiya clear blue paint.
Weathering was applied in the form of light chipping around the edges and where the crew would step and work. These were added by using sand and green colour paints applied with a sponge.

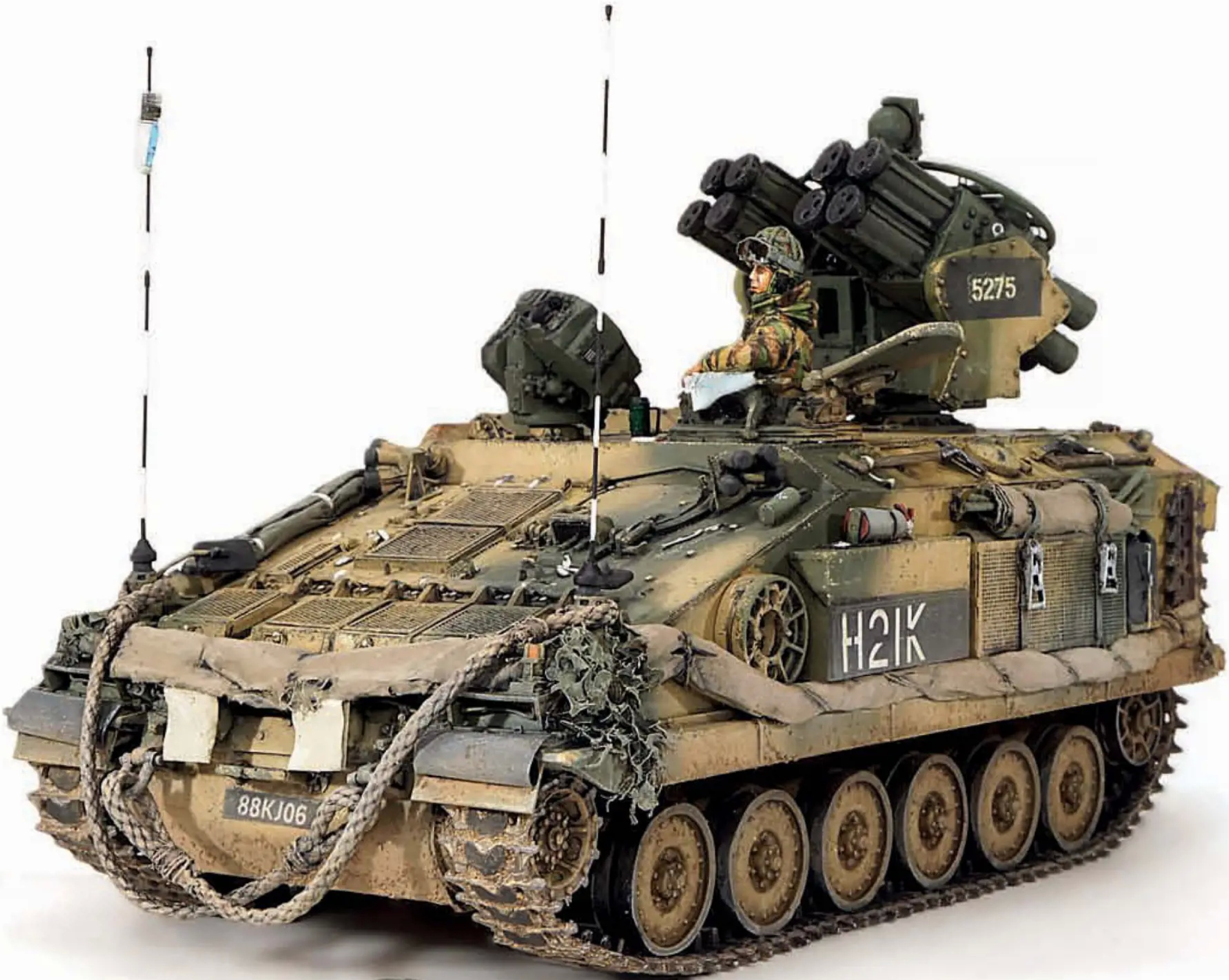
I used weathering pencils to add some light streaking and dust, and mud colours airbrushed onto the tracks and lower hull. I mixed up some fine sand and white glue and 'slopped' this watery mix onto the tracks and roadwheels, rubbing off excess with tissue paper. In the Canadian summers the ground is usually very hard and dusty, rather than muddy. I fitted some kinetic tow ropes to the front hawsers. There were available from AA, but I've found you can make you own from pull-cord rope, cut to size and wrapped

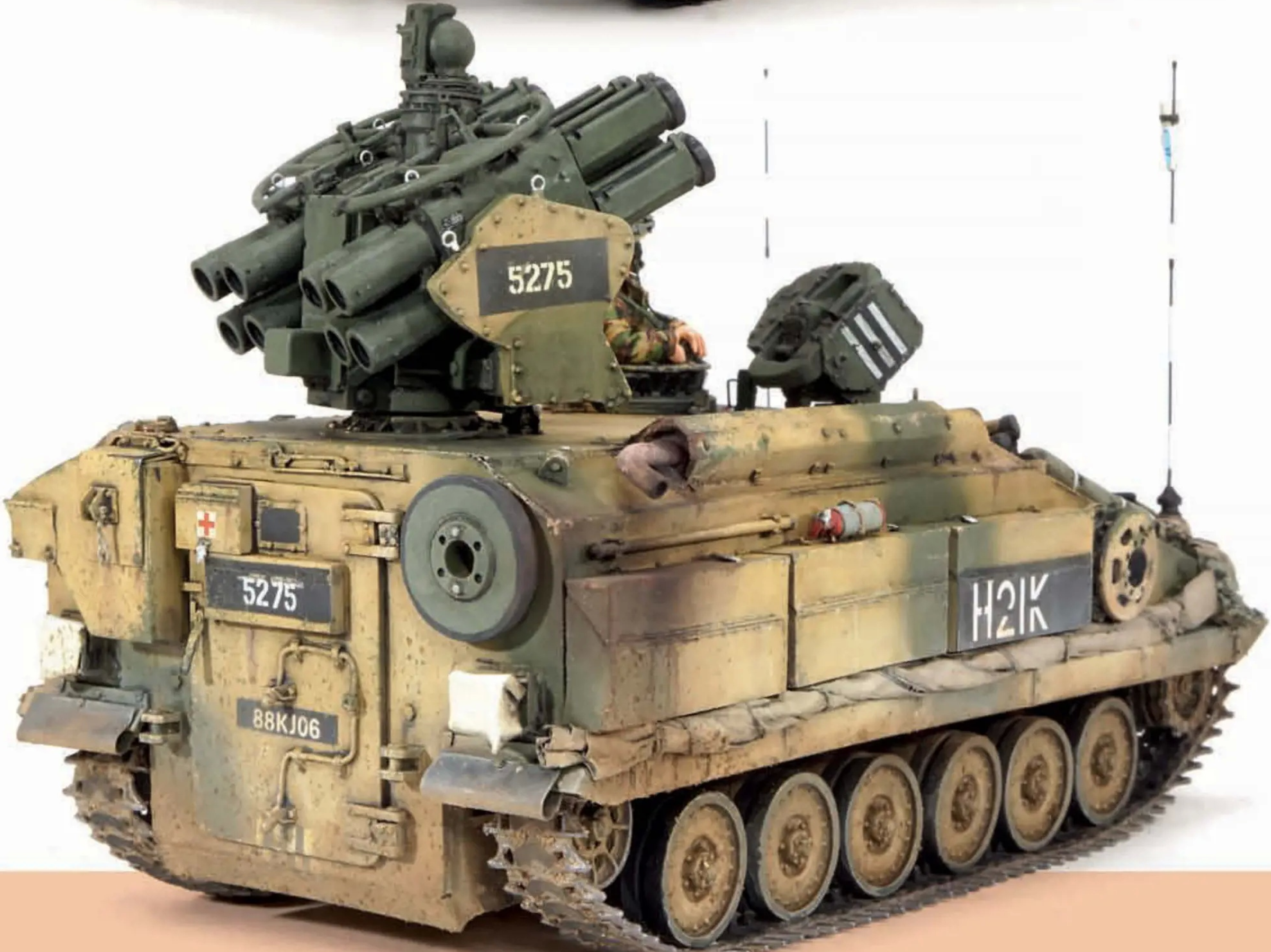


A final application of dust tones was made by light passes with the airbrush.

The figure is various parts from the spares box. I added a set of binoculars and a map, as well as a cigarette packet and lighter to add a bit of life and personality to the model.

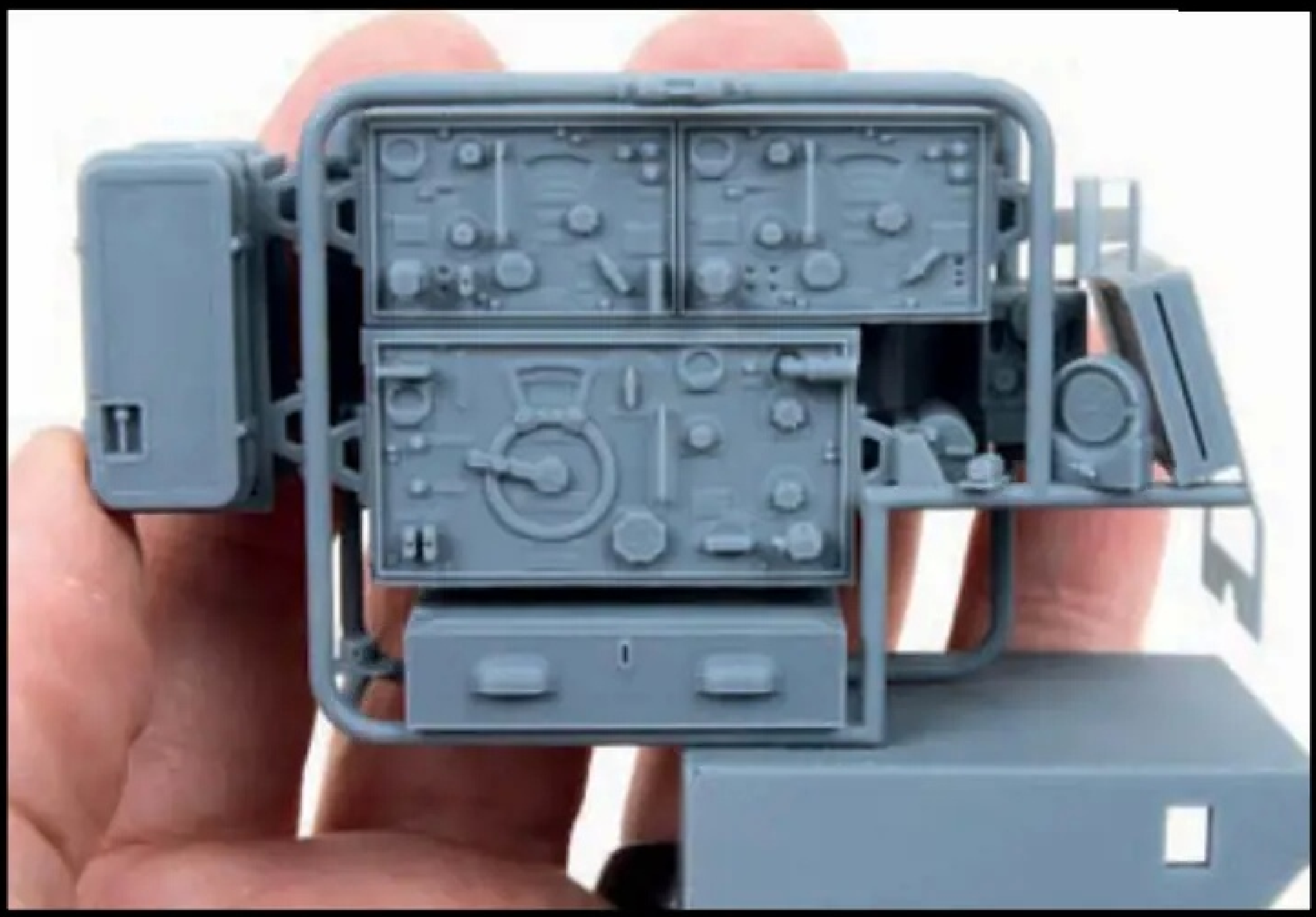
Sadly, at the end of 2024 Accurate Armour announced that it would be stopping production and ceasing trading in 2025. If you've followed my previous AFV Modeller magazines, you'll know that I have a massive liking for Accurate Armour: their Modern British models fill a huge gap in the market and will be sorely missed. I'd like to pass on my thanks; and wish Derek Hansen and all the team at Accurate Armour all the best for their future endeavours and plans.


5275
H2IK
88KJ06

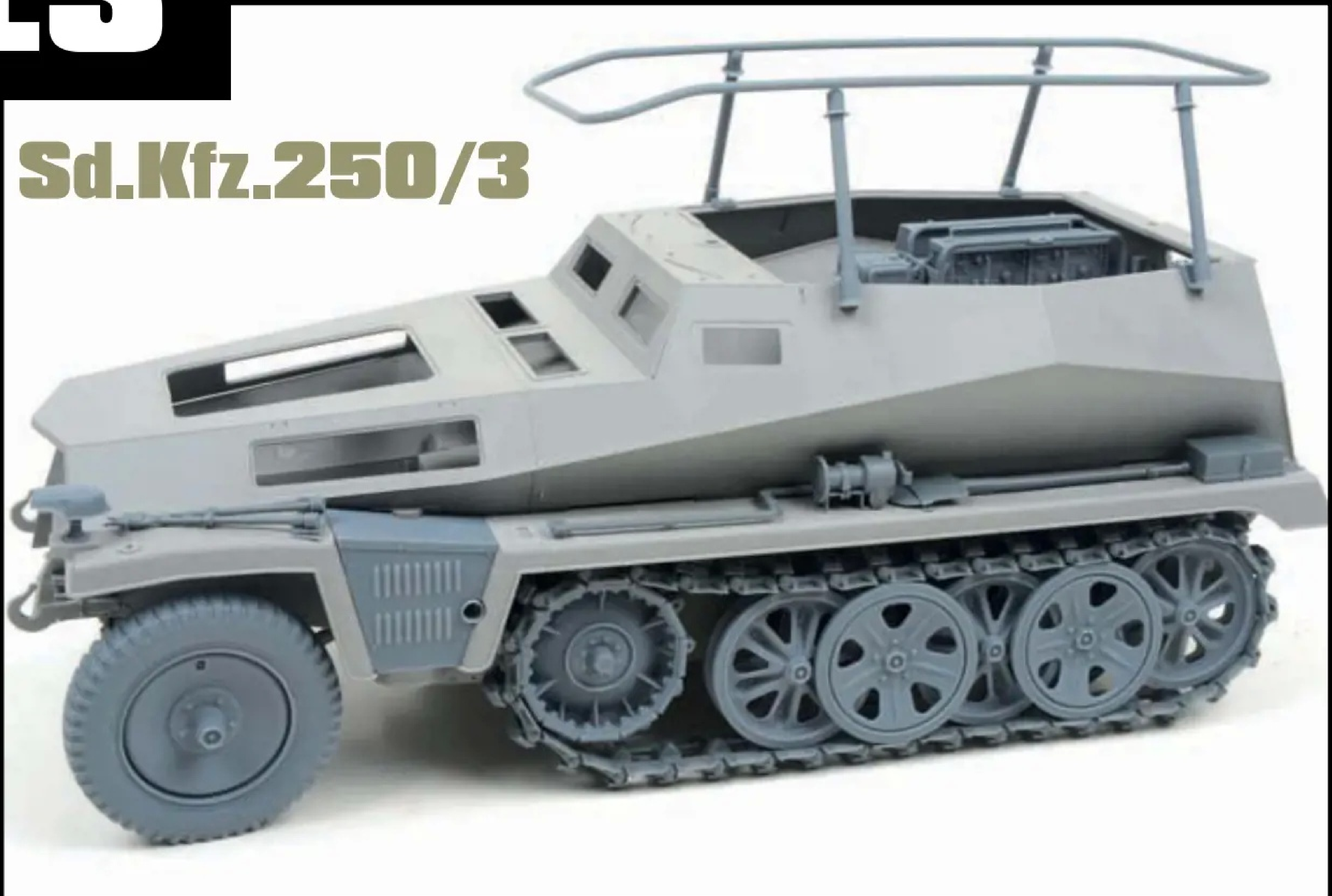

5275
5275
H2IK
88KJ06

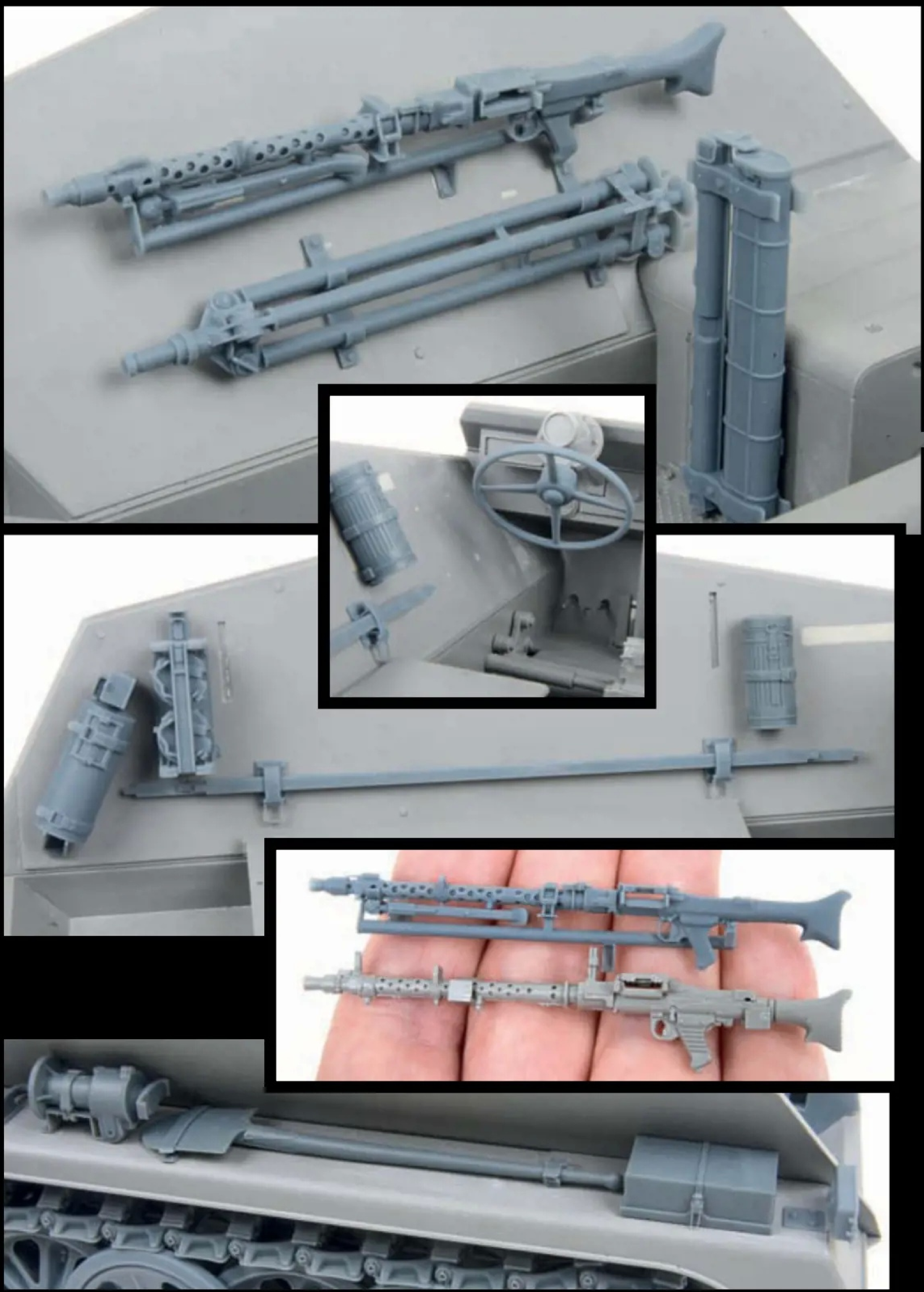
Sd.Kfz. 250 HALFTRACK UPGRADES

1:16

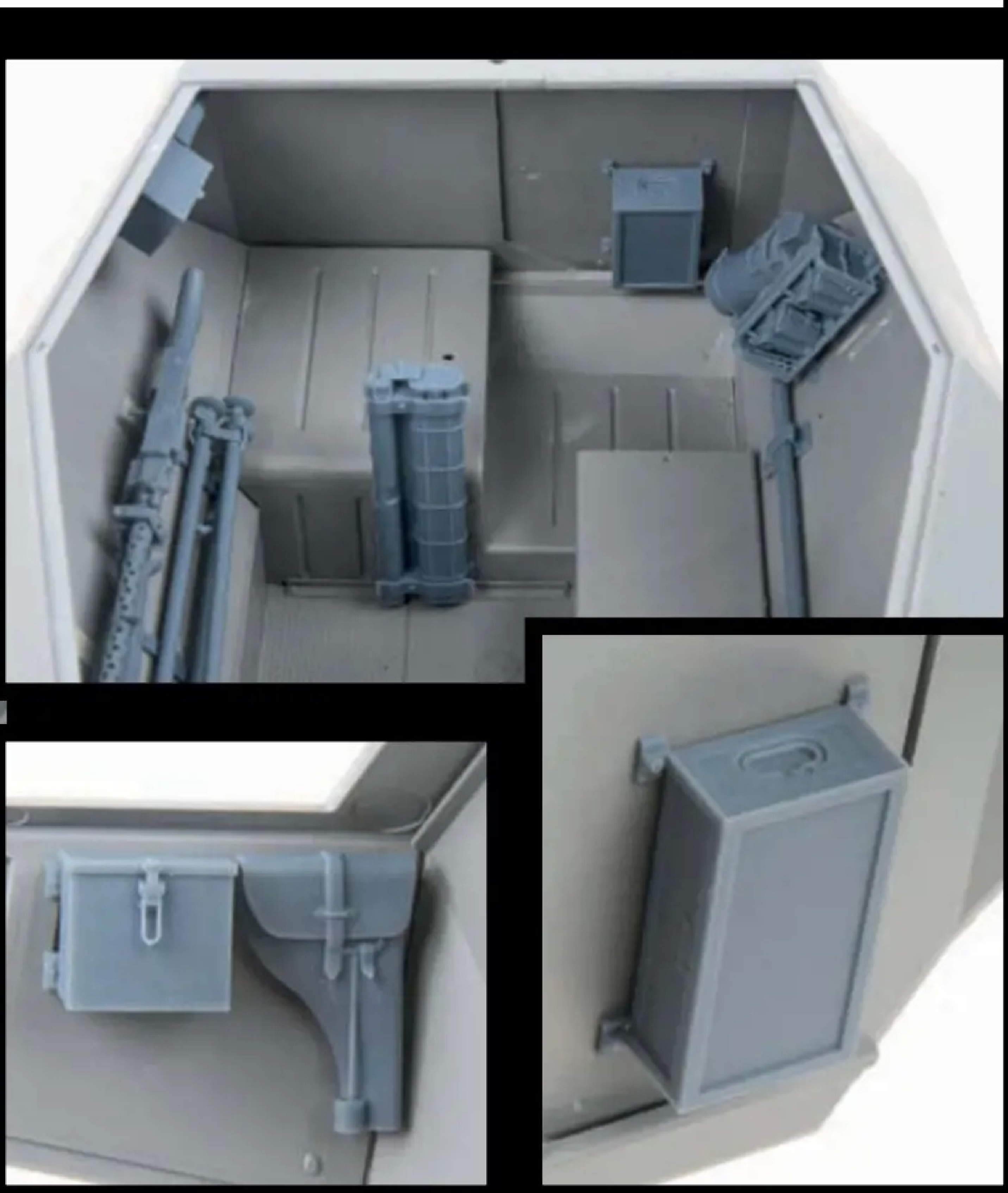


Sd.Kfz. 250/3 conversion
This conversion set will provide the distinctive frame antenna and the radio rack installation to build the Leichter Funkpanzerwagen Ausf.A (wheels tracks and other external parts available separately)





Sd.Kfz.250 Tool Correction Set
This set corrects and significantly upgrades the vehicle tools with integral beautifully detailed tool clasps and stowage fittings. Along with the seven tools the set also includes the stowed Jack block and Notek/convoy lamps.

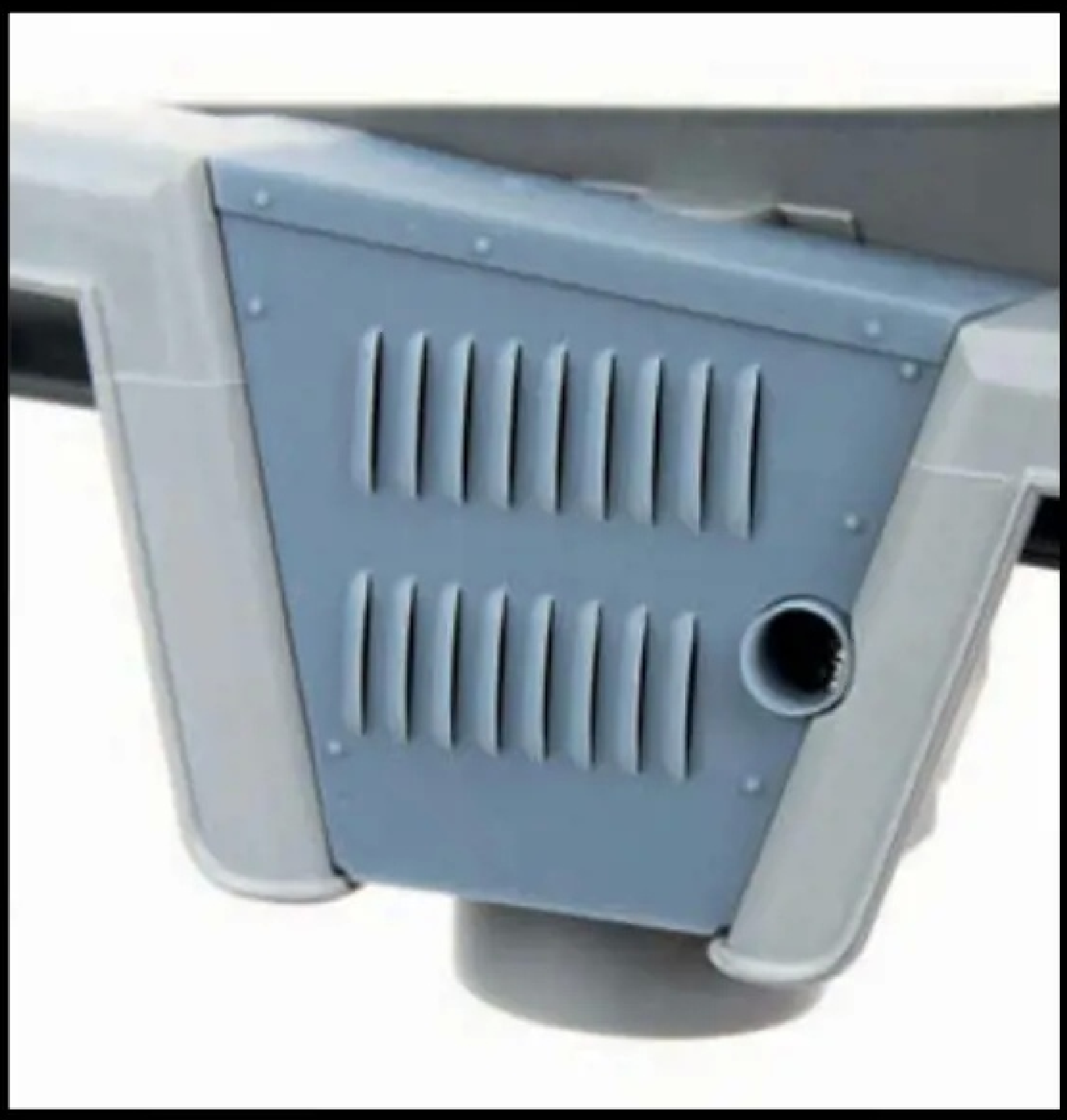


Sd.Kfz.250/1 Interior stowage upgrade

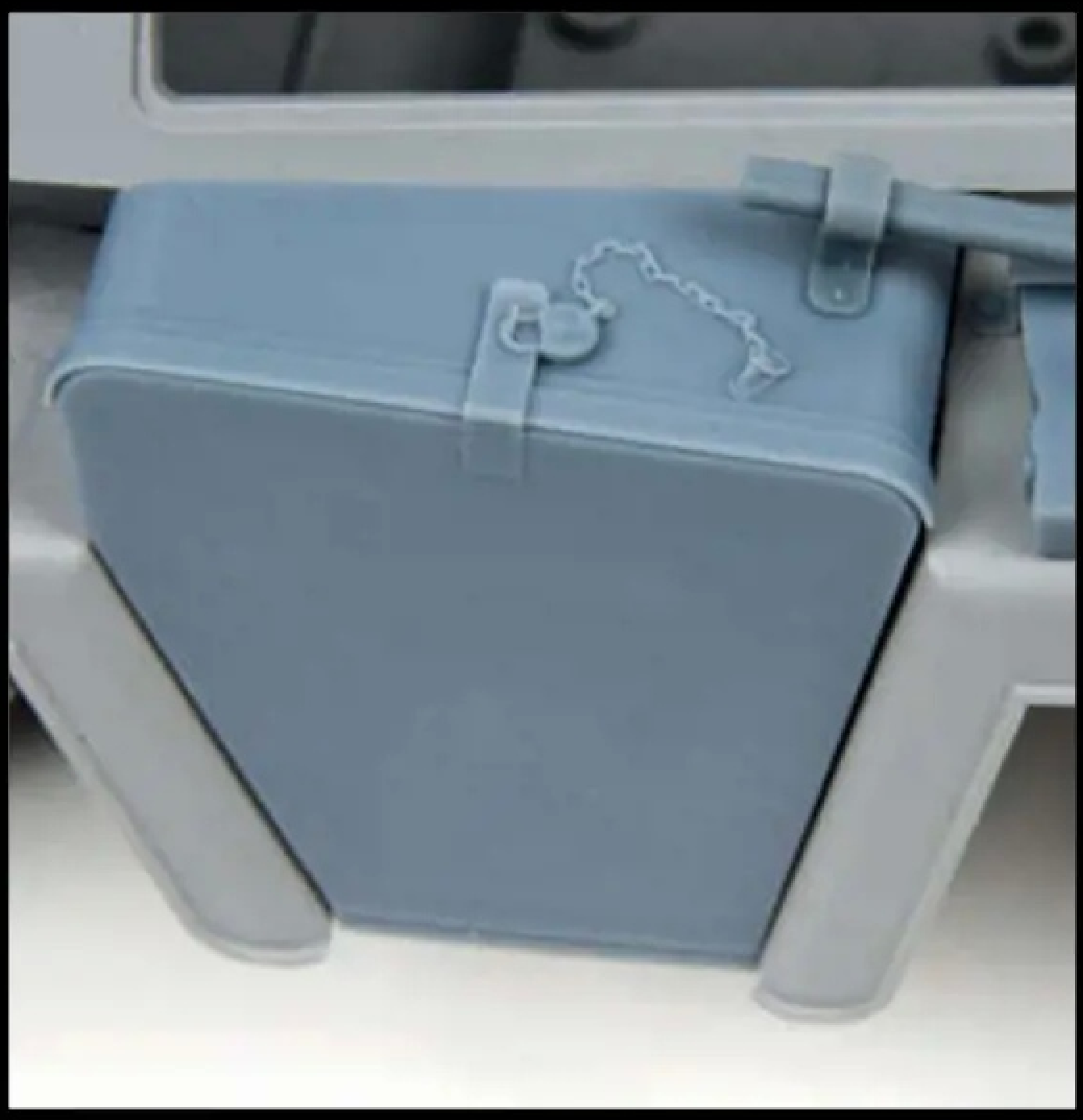
This upgrade set provides replacement parts to correct and upgrade the interior stowage parts. The set includes: On the left hull side, a set of the three stowed tarpaulin hoops which are completely missing from the kit, Fire Extinguisher, Gas Mask case, and MG ammunition drum case. On the Right hull side, stowed MG 34 with stowage rail, stowed MG tripod with the correct mounting hooks and strap to clamp the legs. Flare box replacing the undersize and poorly detailed kit part, Flare Pistol Holster replacing the simplified kit part. On the rear door there is a new First Aid Box, replacing the undersize and simplified kit part. We have also included a new pair of stowed MG gun barrel cases and replacement steering wheel.

1:16

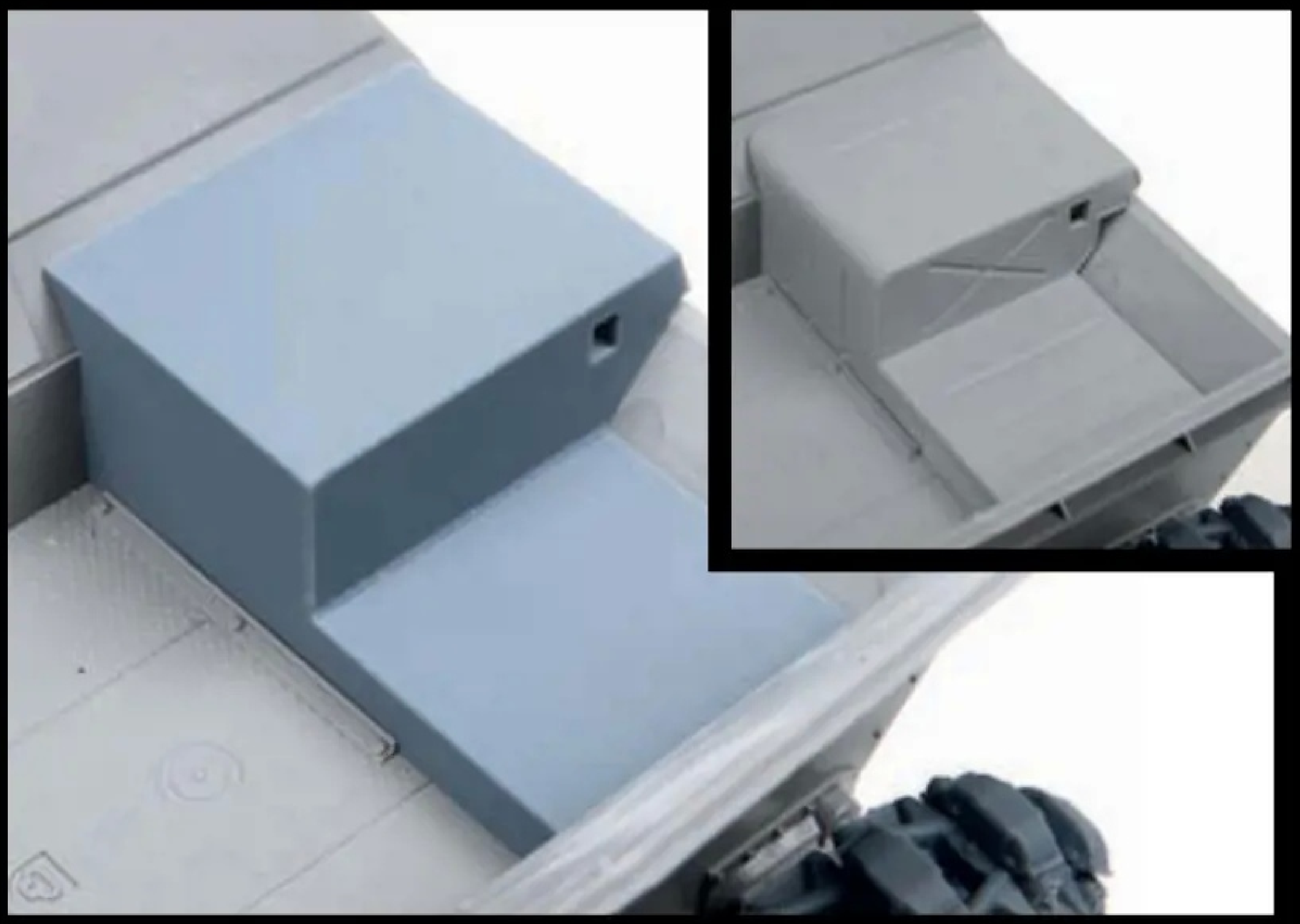
AFV modeller



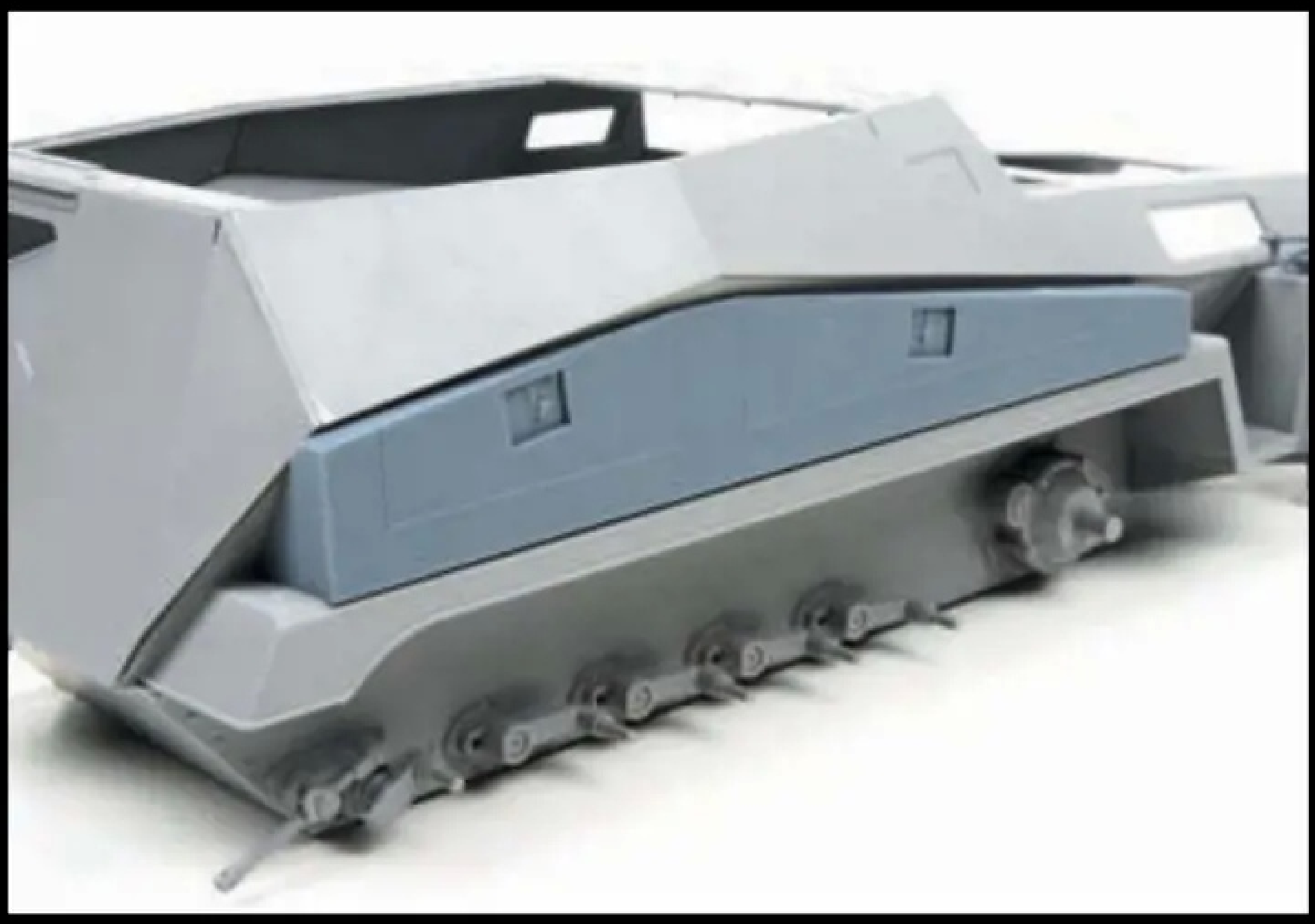
Sd.Kfz.250 Open Exhaust Louvres
This simple upgrade opens the solid kit exhaust louvres with a choice of two louvre patterns.



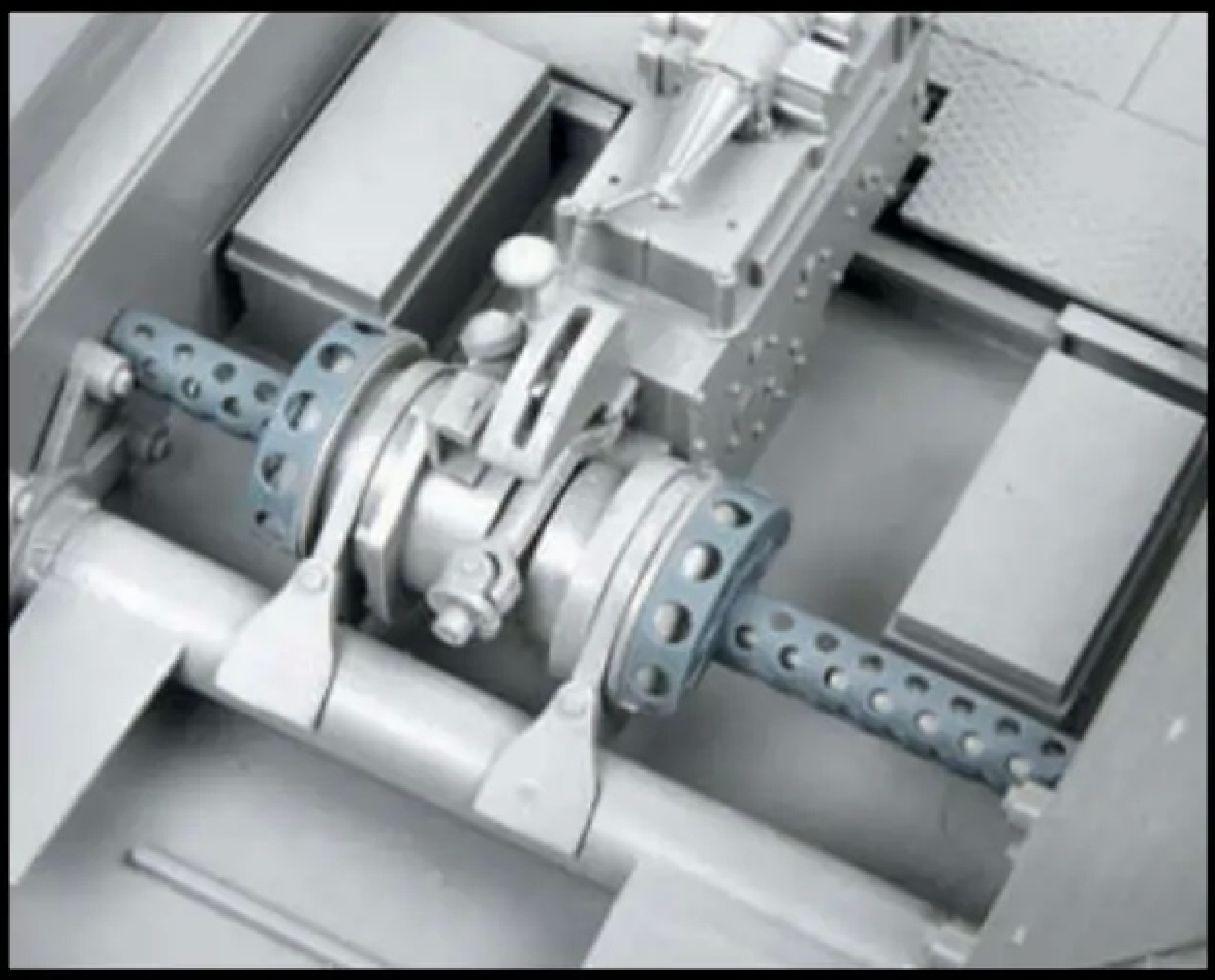
Sd.Kfz.250 Corrected Toolbox
This single piece part corrects the errors in the kit part and comes complete with padlock and chain.



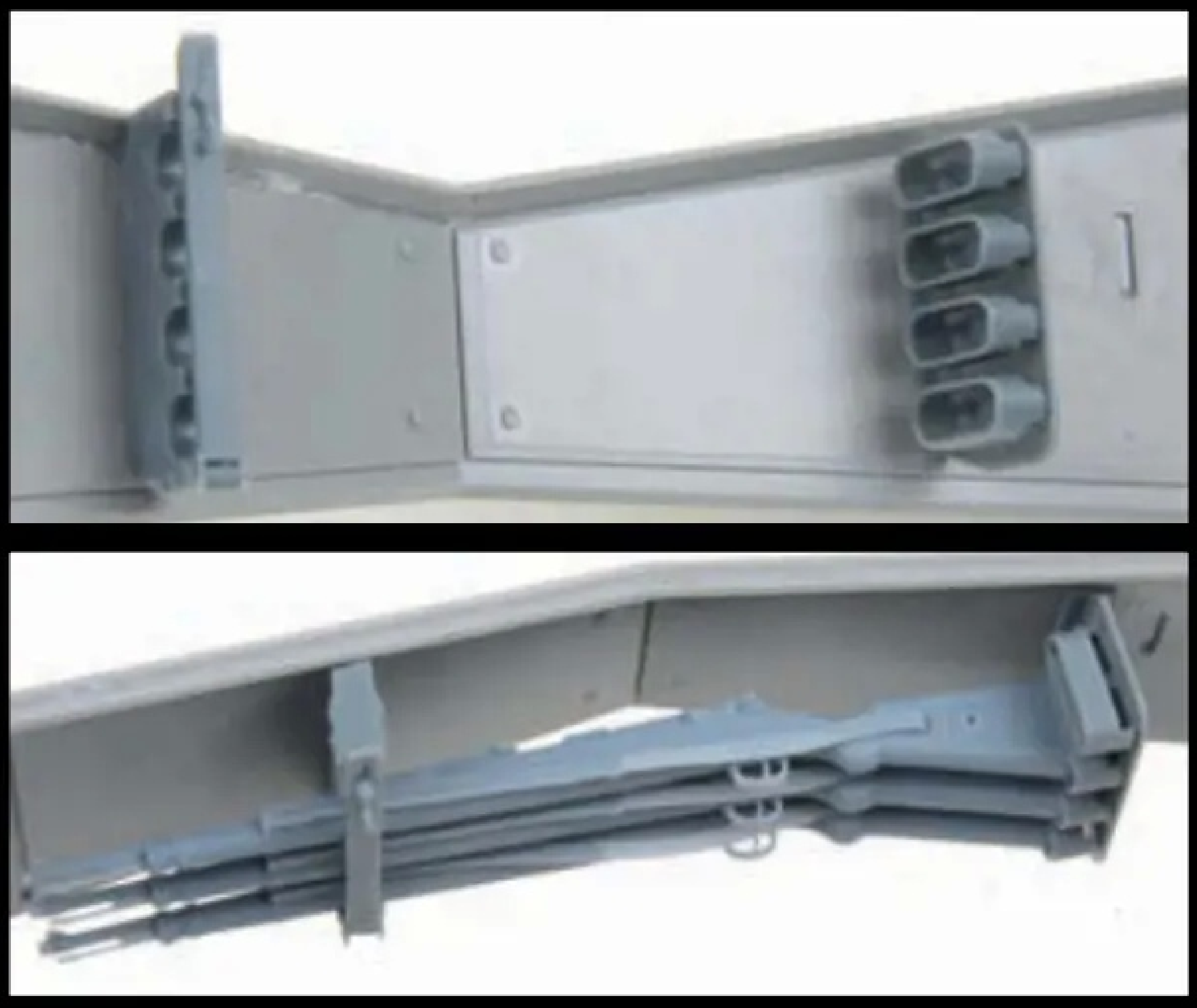
Sd.Kfz.250 Corrected Rear Floor
A quick and simple fix for the fuel tank at the back of the hull floor which is missing its welded armour cover, simply substitute our new part complete with weld seam details.



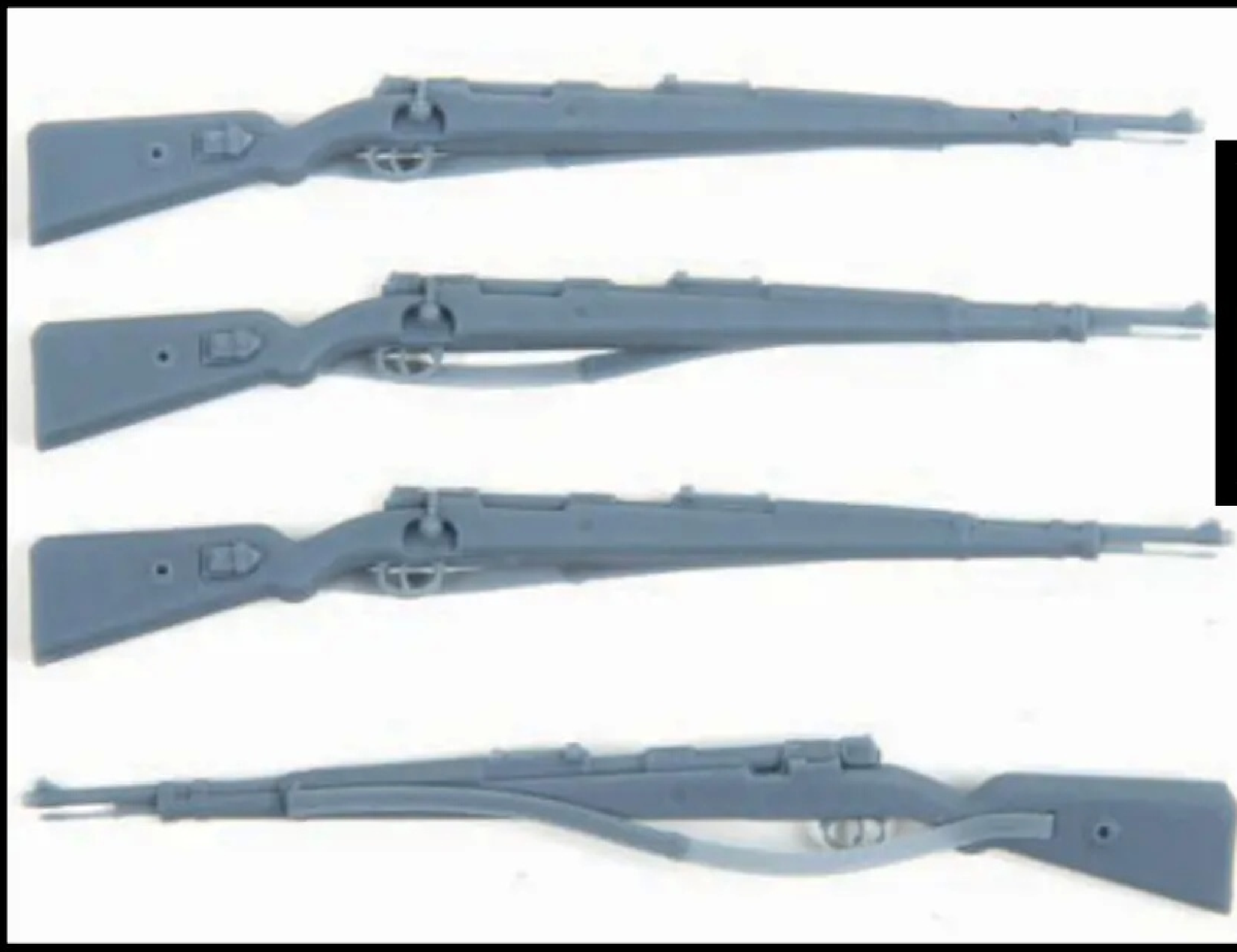
Sd.Kfz.250 Fender Locker
This conversion part allows you to model the custom fender stowage lockers seen on some vehicles.



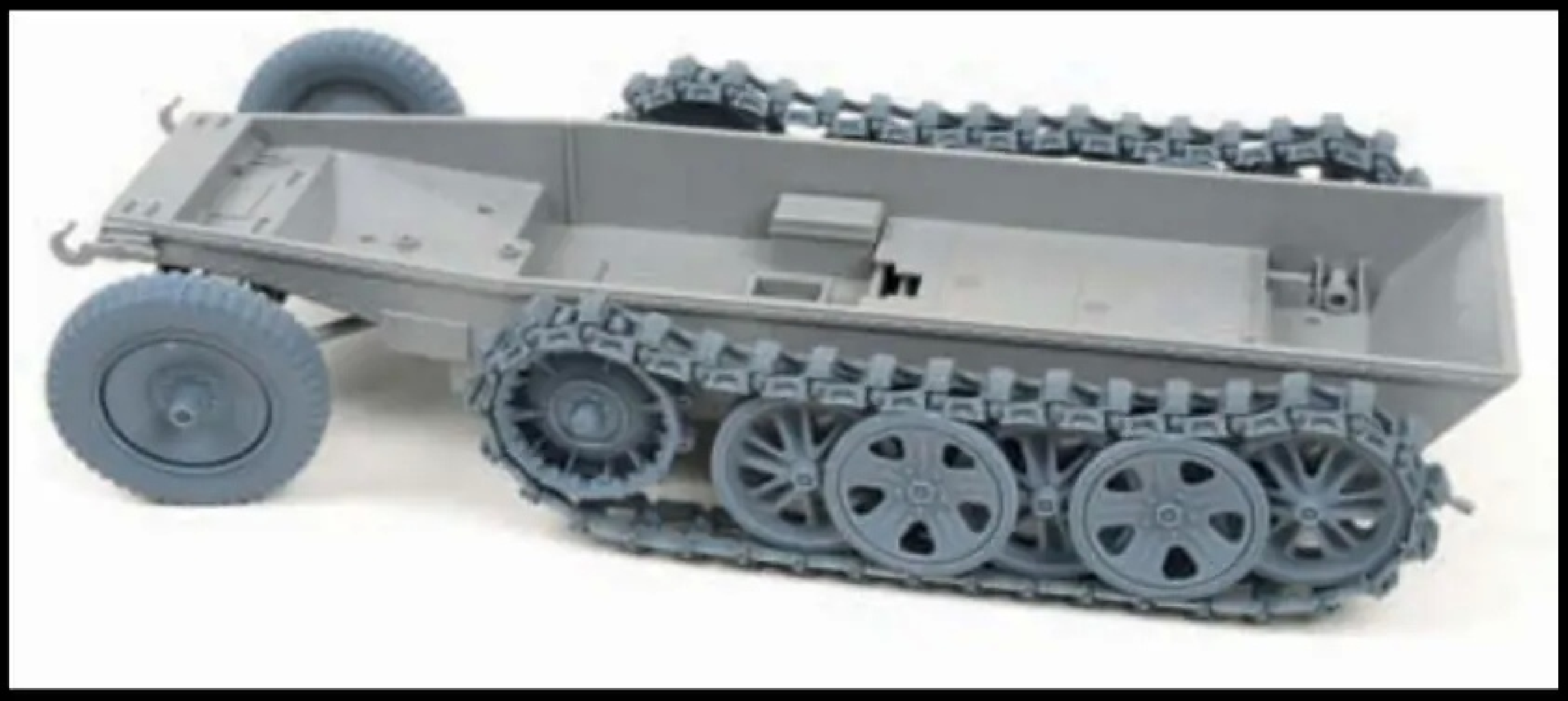
Sd.Kfz.250 Ventilated Drive Shaft Covers
This set of 3D printed Drive Shaft Covers is to replace the kit photo etched parts, they simply drop into place on the drive shafts.



Sd.Kfz.250 Corrected Rifle Racks This 3D printed 3 piece set provides the parts to correct the rifle racks inside the hull. Designed to work with our KAR 98 Rifles 16256 (not included)



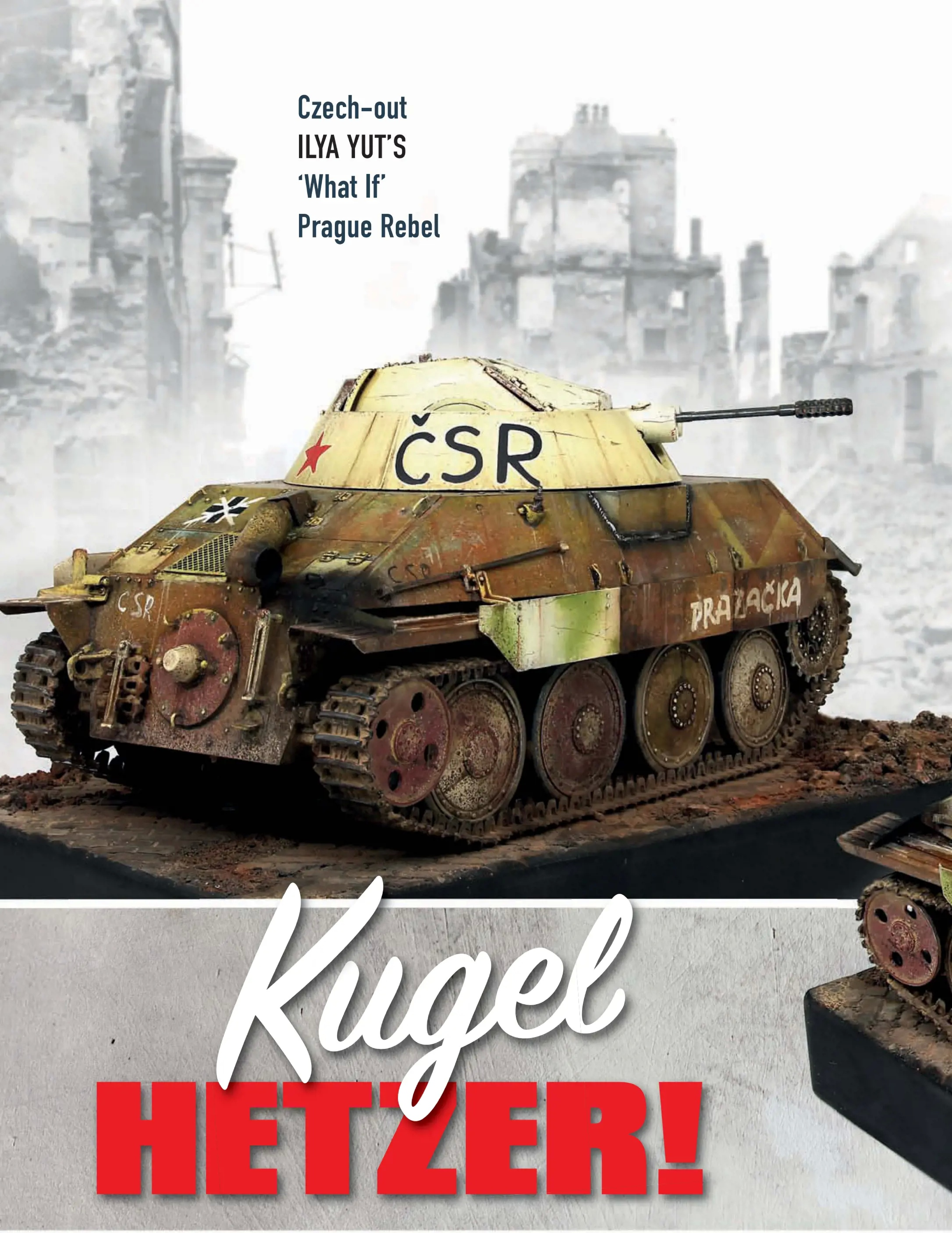
Kar 98 Rifles with slings
This set of 4 Karabiner 98 rifles is aimed at modellers fitting out their Sd.Kfz. 251 or 250, both carry stowed Kar 98 inside. In the Sd.Kfz.250/1 there are 4 rifles whereas in the Sd.Kfz.251/1 there are 8 rifles. In both Das Werk and Trumpeter kits the supplied rifles are out of scale, with other assorted errors and neither supplies the rifle slings. This set offers correct scale size, superior detail and each rifle comes with a separate differently posed sling rather than a uniform look.



Weighted Front Wheels which as well as offering greatly improved tire detail also corrects the errors in the kit wheel rims.
Corrected Sprockets fixes the mistakes on the kit sprocket hubs, provide much finer rib detail, cast texture and optional separate hub caps.
Corrected Roadwheels Corrects the over scale lips on the inner wheels and the bolt details on the outer wheels.
The Corrected Tracks 40 links supplied per side with individual track pins to assemble the tracks. Highly detailed with scale thicknesses, quicker to assemble than the kit tracks with a far more accurate finished appearance.

Czech-out ILYA YUT'S 'What If' Prague Rebel

Kugel HETZER!


ČSR
CSR
PRAŽAČKA

Prague fell under Nazi occupation in spring of 1939, with other parts of Czechoslovakia being annexed even earlier. Since then the former Czechoslovak industry was under Nazi control producing various military products, including Pz. 38(t) tanks and Hetzer tank destroyers based on its chassis. In May 1945, a few days before the Nazis unconditionally surrendered to the Allied forces, Prague rebelled and a few days of fighting ensued.The Czech resistance used several unfinished Hetzers during the fighting.

Many years ago I was very impressed with Adam Wilder's model of such a Hetzer finished as unprimed rusty metal with colourful markings. I even bought a Bison decal sheet for such a subject but didn't indulge into building an actual model myself. The reason was simple - there was (and is) no chance of making a better rendition of the subject or at least making it significantly different but still cool. So the decals stayed in my stash for 10-15 years, moved with me from Russia to Israel and had little chance to be used.

ČSR
PRAŽAČKA
SMRT VRAHŮM

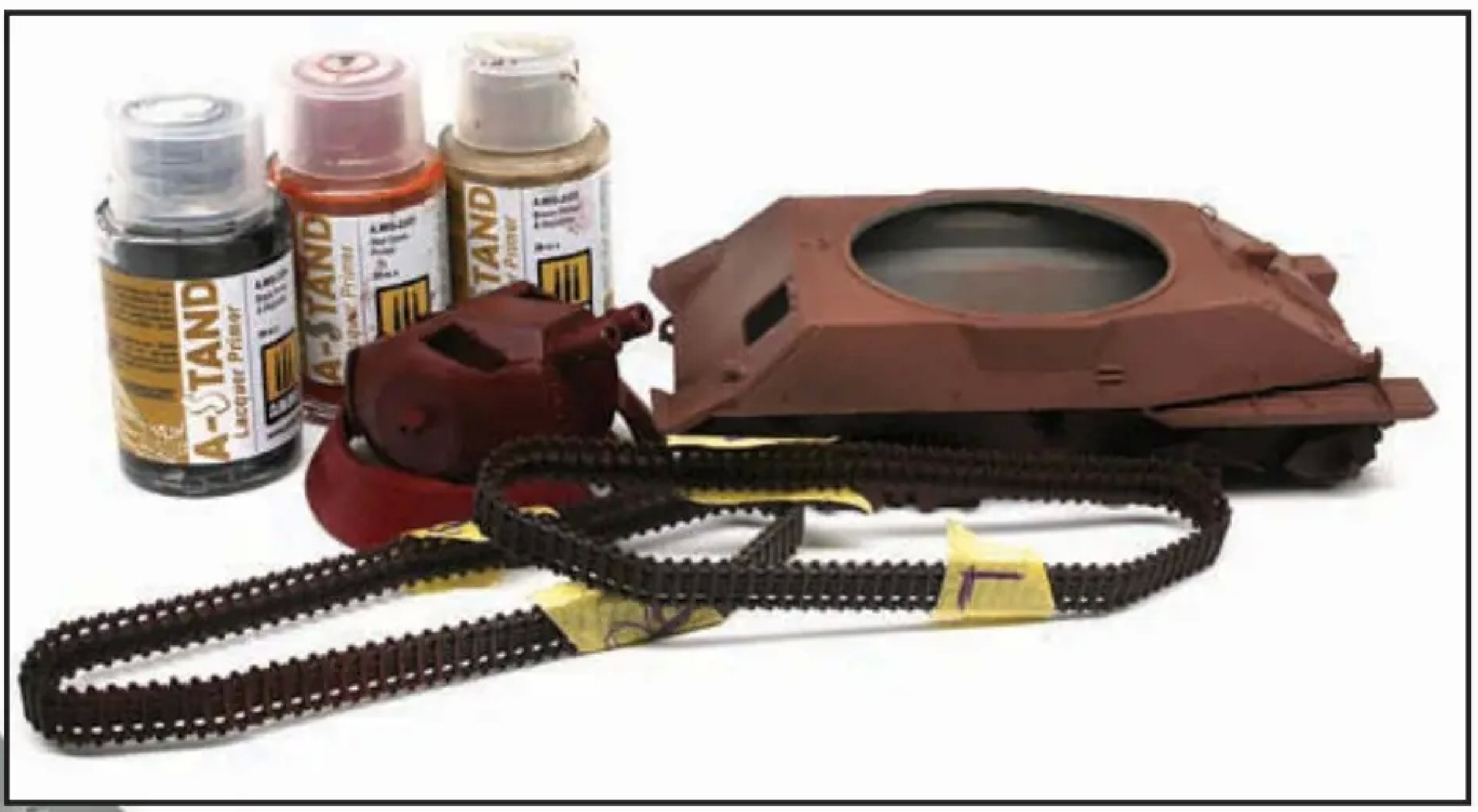
In early 2024 Takom announced a very cool and weird what-if subject - Flakpanzer 38(t) Kugelblitz. Essentially a modified Hetzer without 75mm cannon, but with an oscillating turret on top. That was the moment that I had been semi-consciously waiting for years! Now I could make my Prague rebel! With this subject, I could now make my very own interpretation of Adam's model, that wouldn't be a failure by definition!

OK, that would be a what-if, but I was OK with that. There was not much hesitation about the paint scheme - rusty hull with relatively clean Dunkelgelb turret.

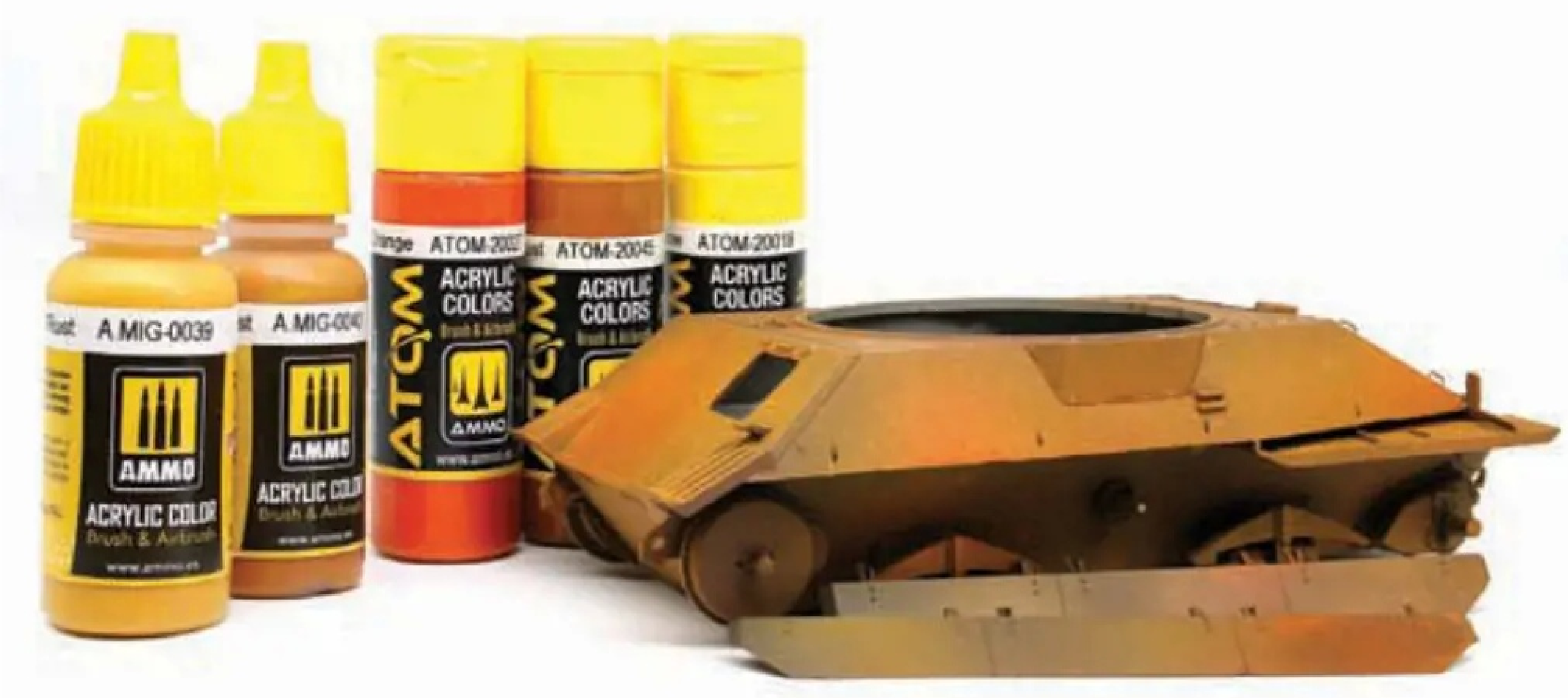
As soon as the kit was released, I ordered it online.

The shape of the superstructure is not as cool, as the original Hetzer, but even with such a paper panzer, they had to change the angles to fit the turret. Yes, I highly doubt that such a vehicle ever existed as a full set of factory drawings, let alone a wooden or mild steel mockup. But this what-if approach fits me well. It's a good excuse for using my artistic license after all!

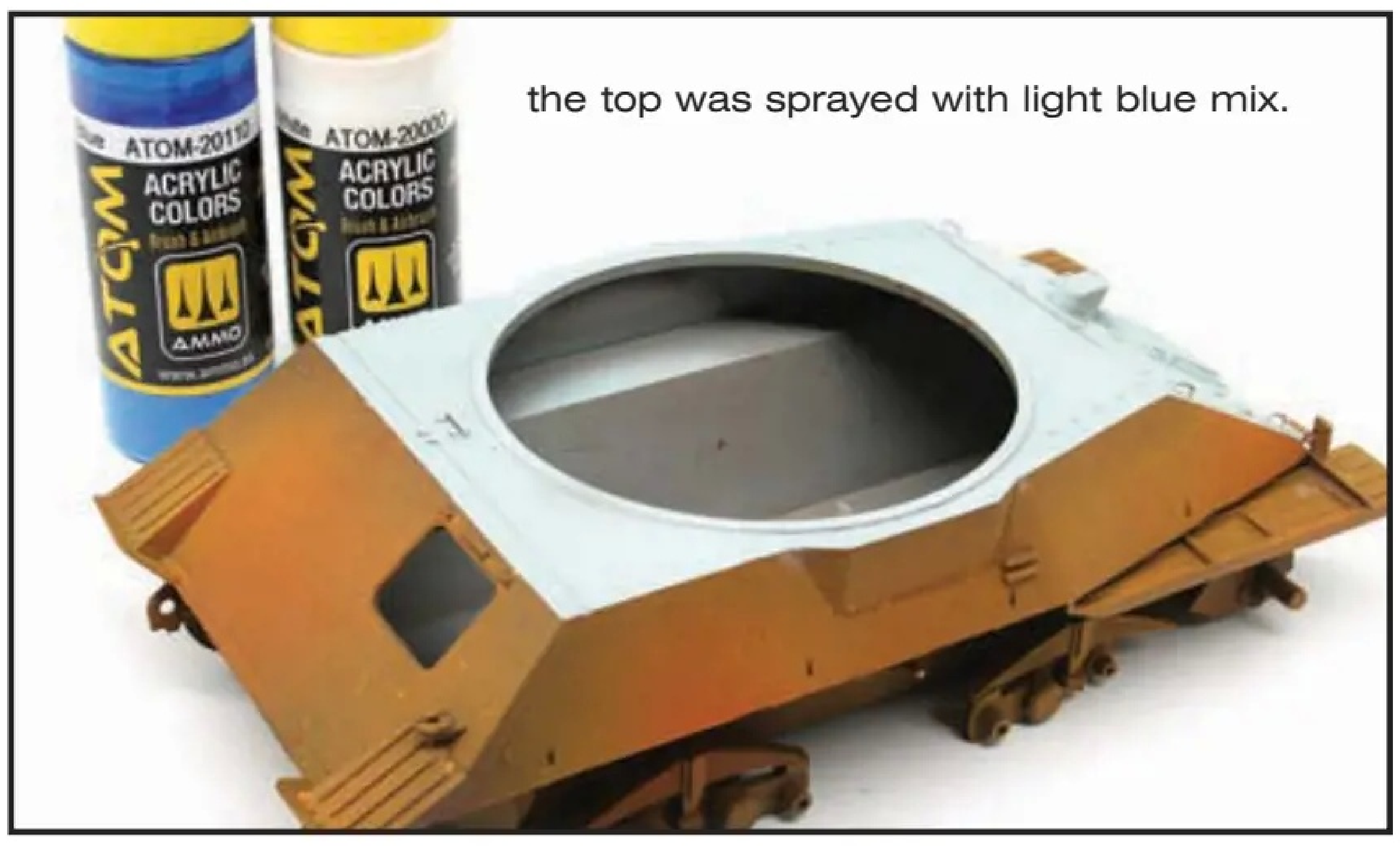
The kit was essentially a weekend build. No major fit issues, nice details, link-and-length track and a PE grill. The only additions were weld seams made of 2-component putty and a handle for a crowbar.



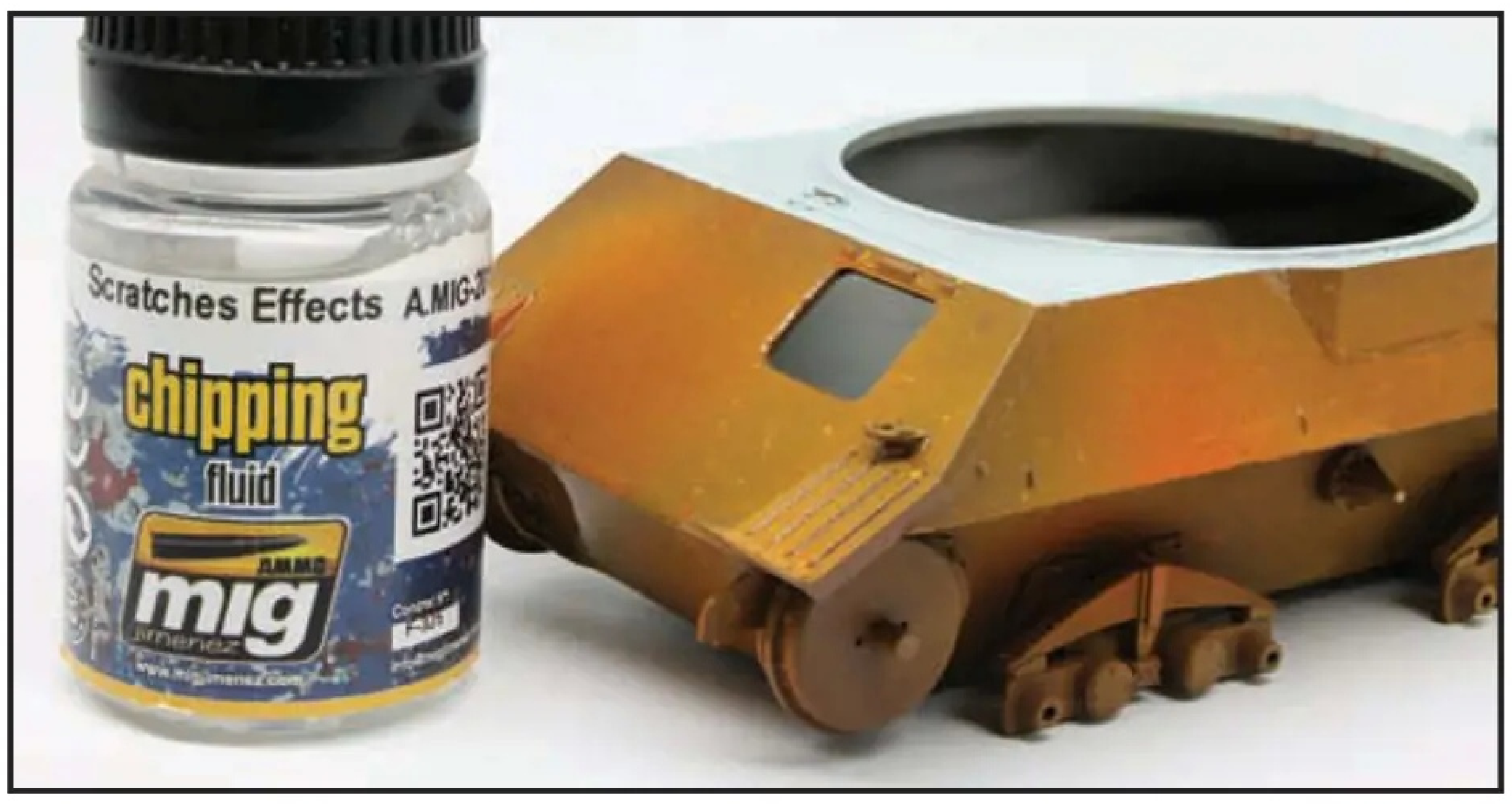
I primed the model subassemblies and separate details using Ammo A-Stand lacquer primers. They are perfectly mixed to be airbrushed straight out of the jar. The Brown primer is way too light, so i mixed it with Red and Black primers to get the dark brown rust tone.


A.MIG-0039
A.MIG-0040
AMMO
ACRYLIC COLOR
ATOM-20022
ATOM-20045
ATOM-20019
ACRYLIC COLORS
ATOM

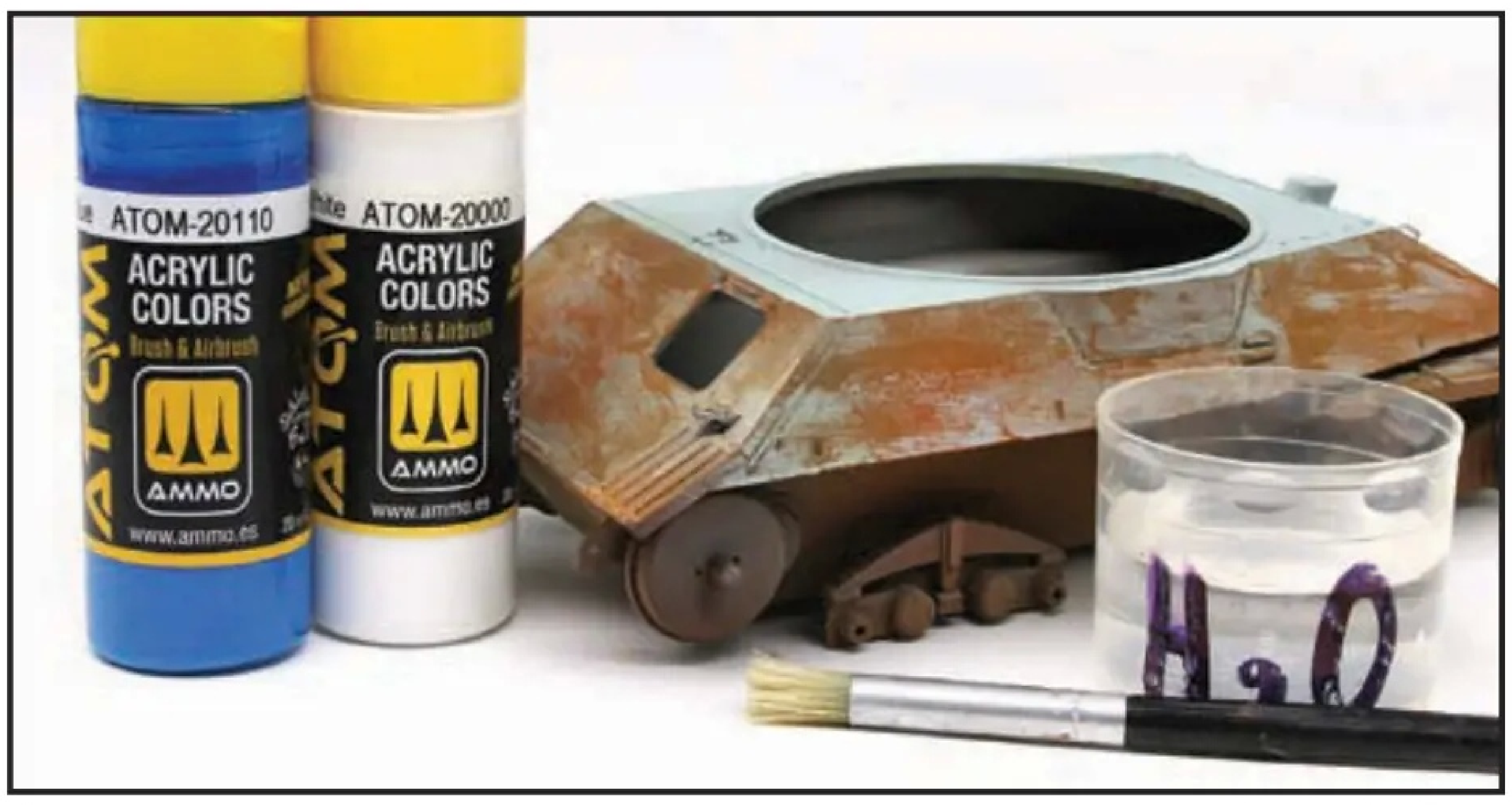
a variety of vibrant rust tones were airbrushed atop of the dark brown base using both classic and Atom rust tones by Ammo.


ATOM-20110
ATOM-20000
ACRYLIC COLORS
ATOM
AMMO

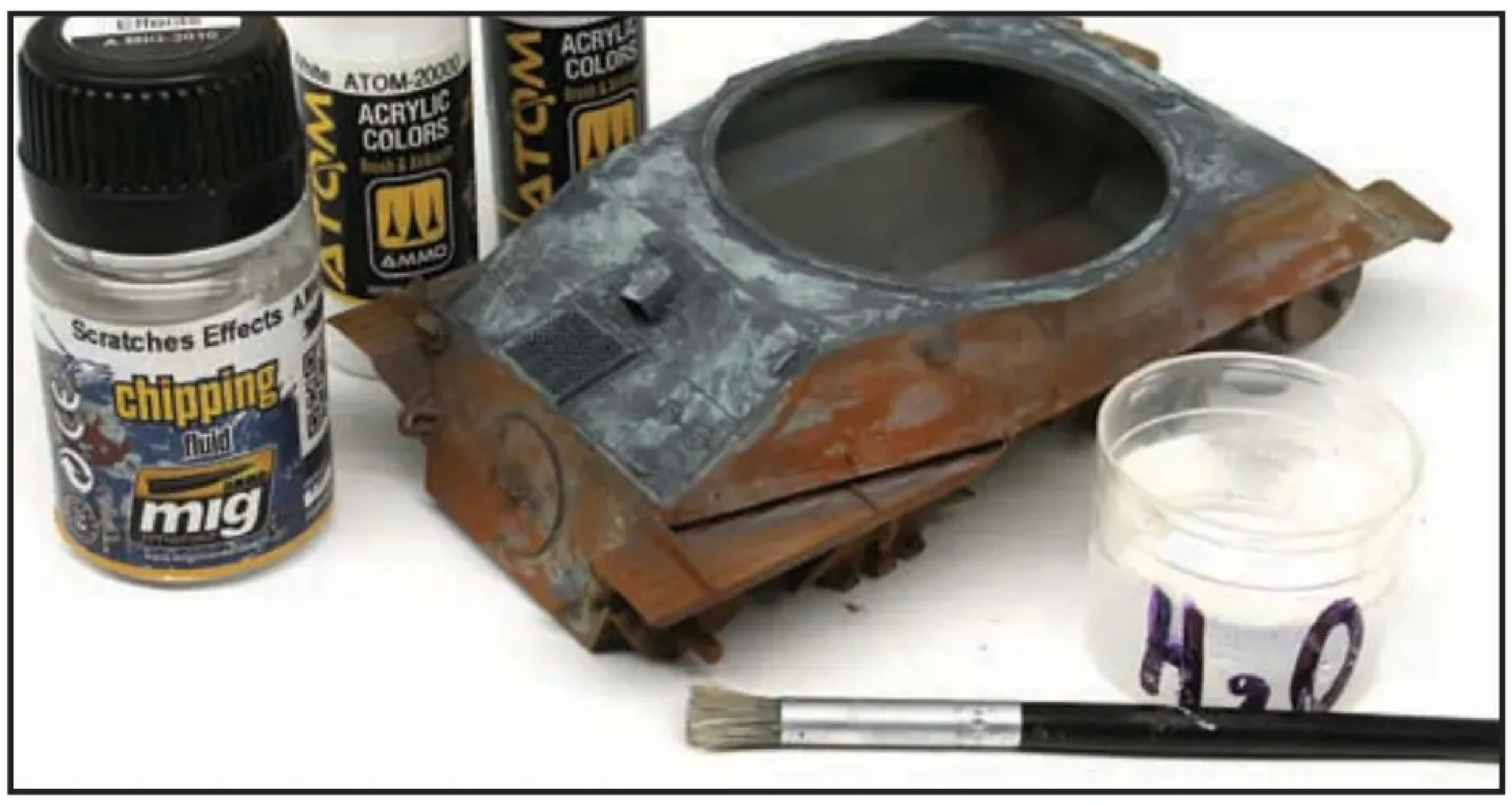
the top was sprayed with light blue mix.


Scratches Effects
chipping fluid
mig jimenez

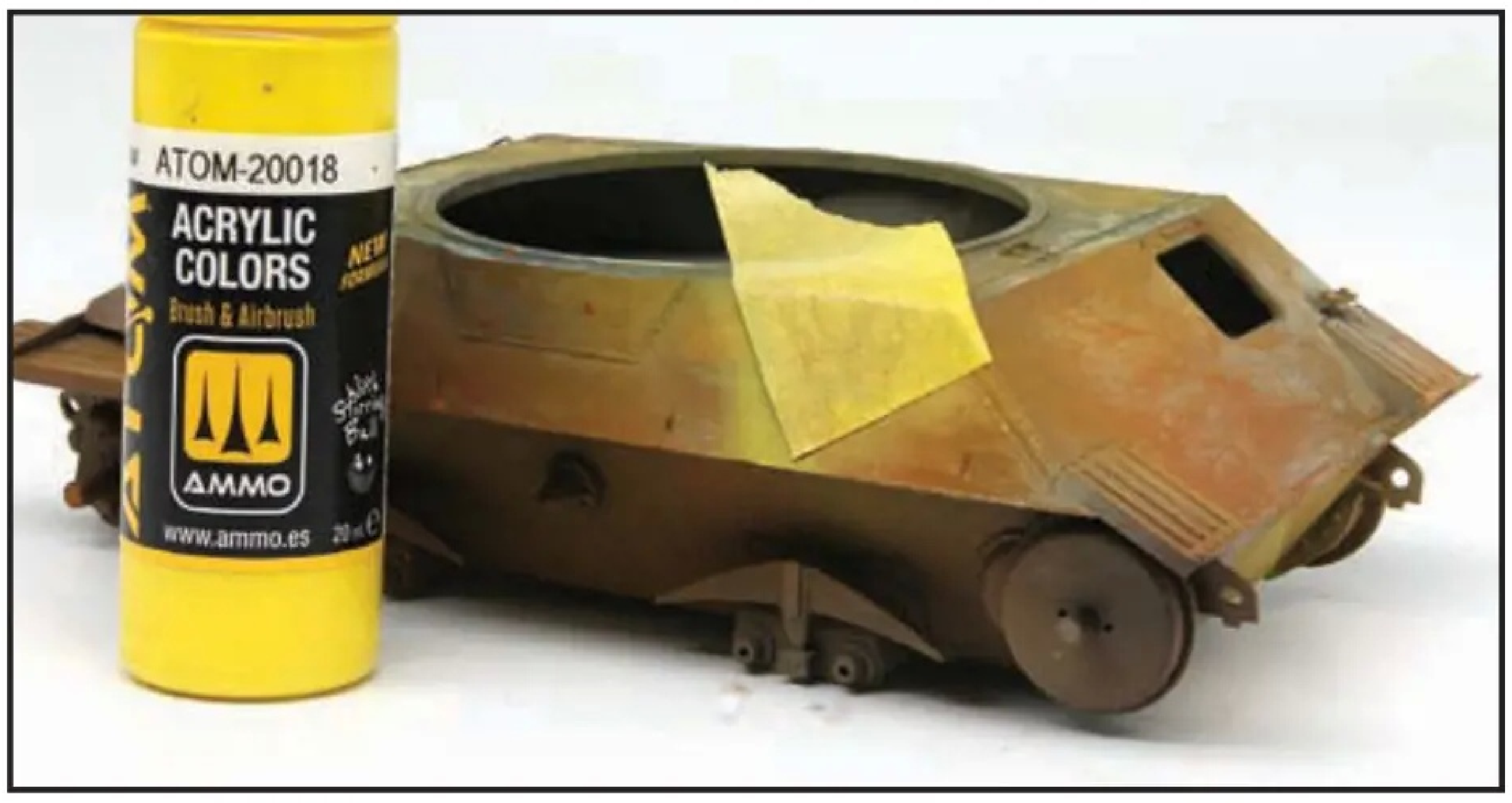
once the rusty acrylics dried completely, I applied 2 consequent layers of Scratches Effects, letting each layer to dry for 15 minutes.


ATOM-20110
ATOM-20000
ACRYLIC COLORS
AMMO
www.ammo.es
H2O

the same light blue mix was airbrushed over the rusty areas and let to dry for a short period of time. Then tap water was applied, activating the layer of Scratches effect and excess top layer paint was rubbed away with a stiff

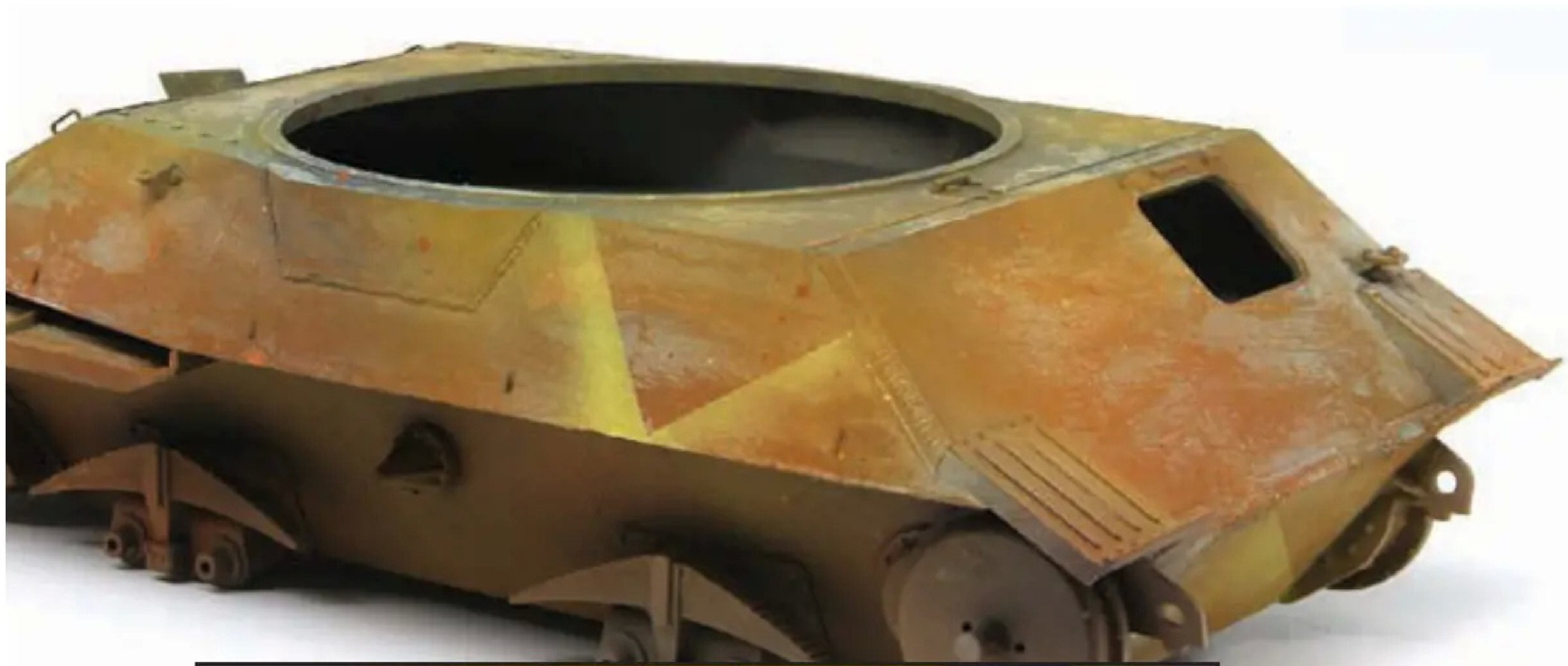

Scratches Effects
chipping fluid
mig
ATOM-20000
ACRYLIC COLORS
H2O

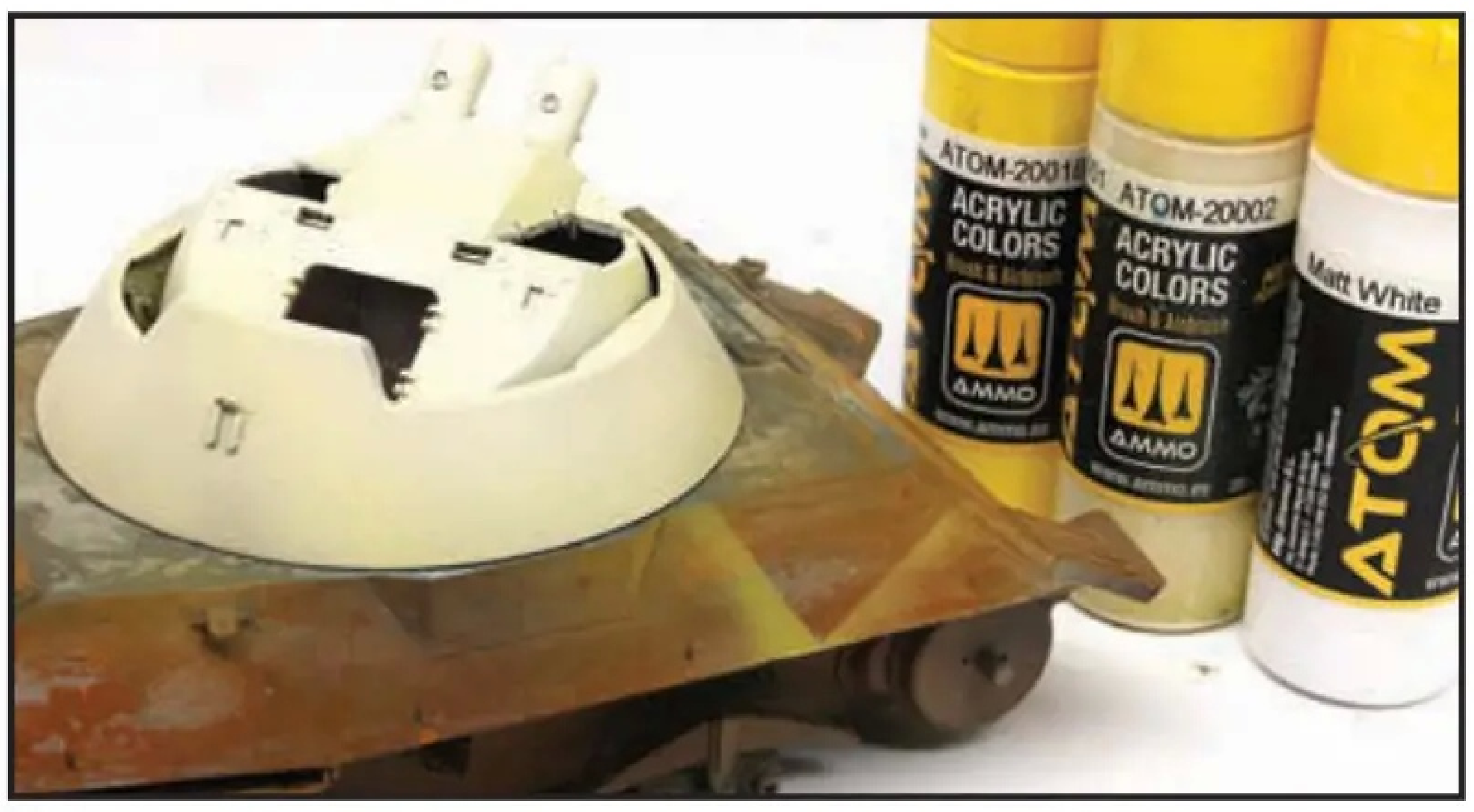
The same approach was applied to the top areas, but in this case the top layer was dark-grey.


ATOM-20018
ACRYLIC COLORS
Brush & Airbrush
AMMO
www.ammo.es

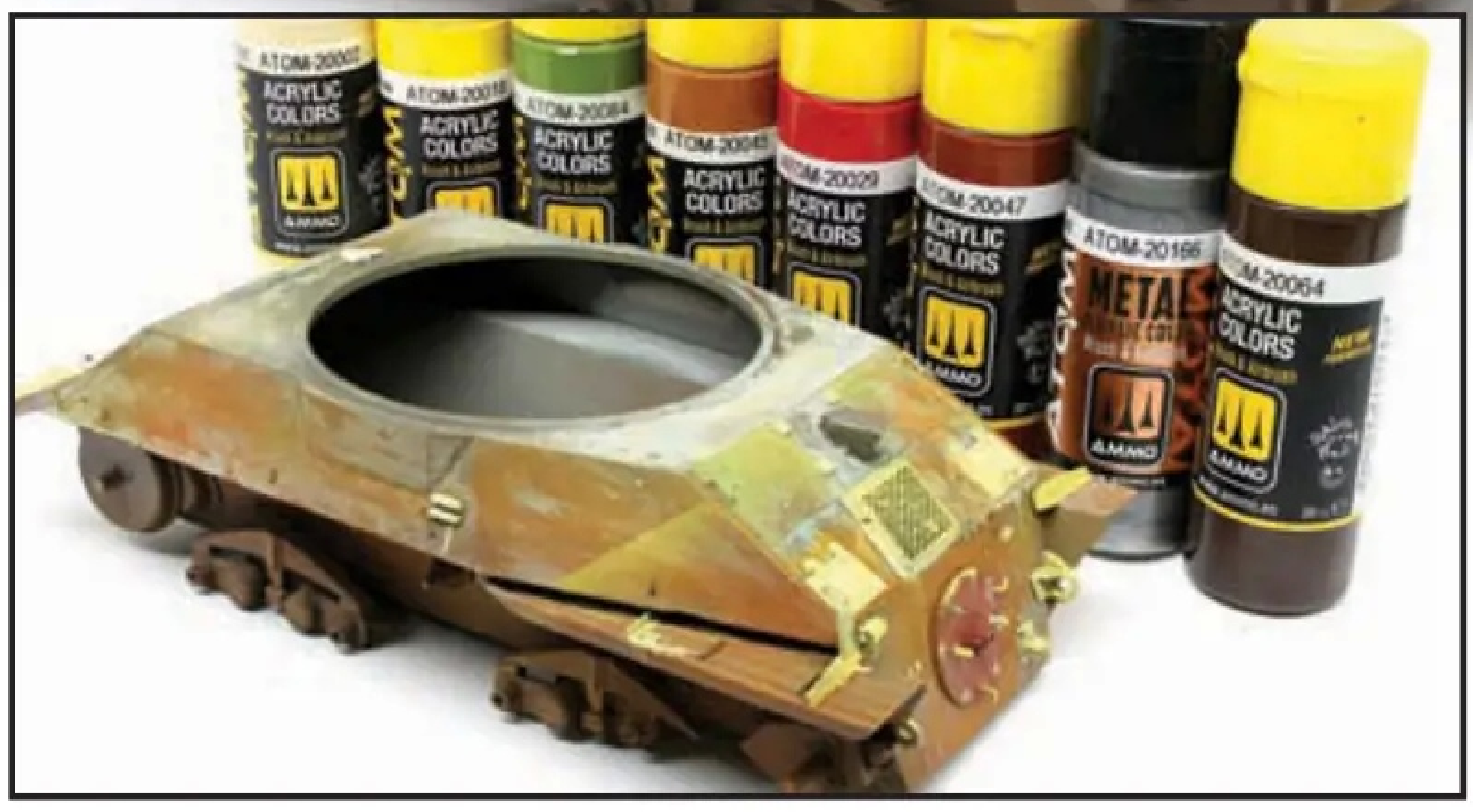
To make a rusty mark (as if another rusty metal sheet laid atop of the armour plate in a warehouse) I used a piece of masking tape and gently sprayed Atom yellow around it.

Once the masking tape was removed, it revealed the nice effect.

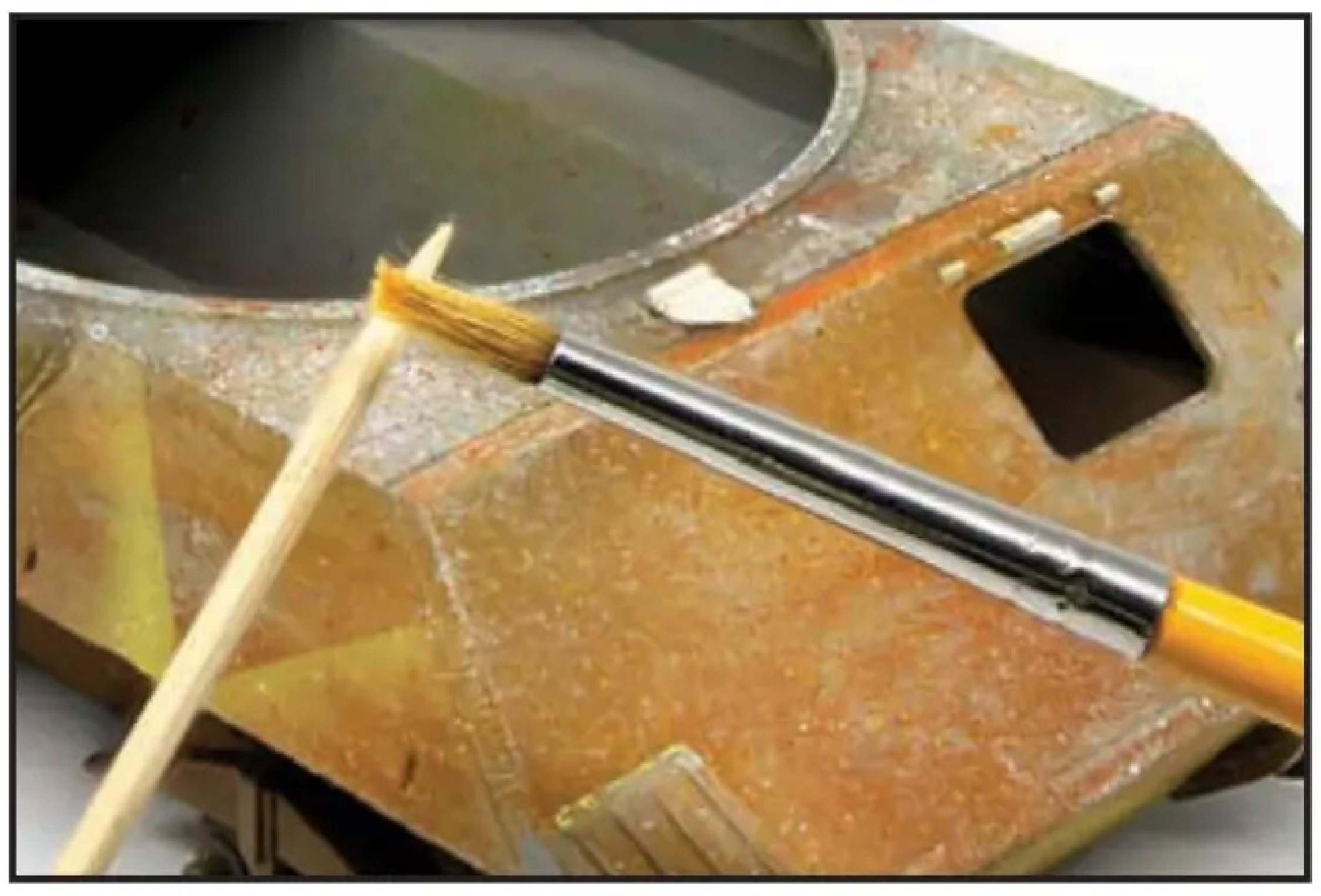


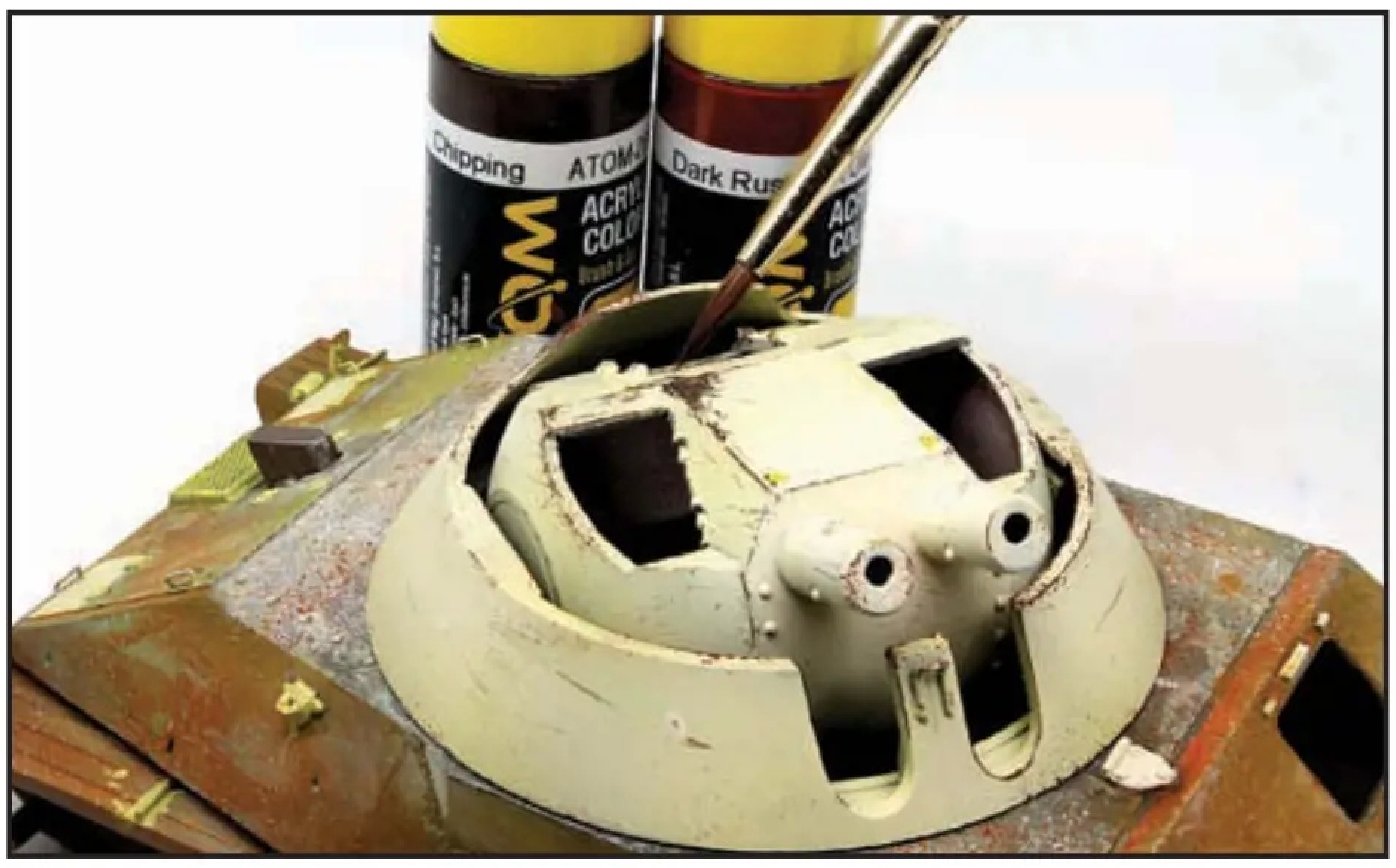

ATOM-20018
ATOM-20002
ACRYLIC COLORS
Matt White
ATOM

The Kugelblitz anti-aircraft turret was painted with sandy mix of Atom paints.

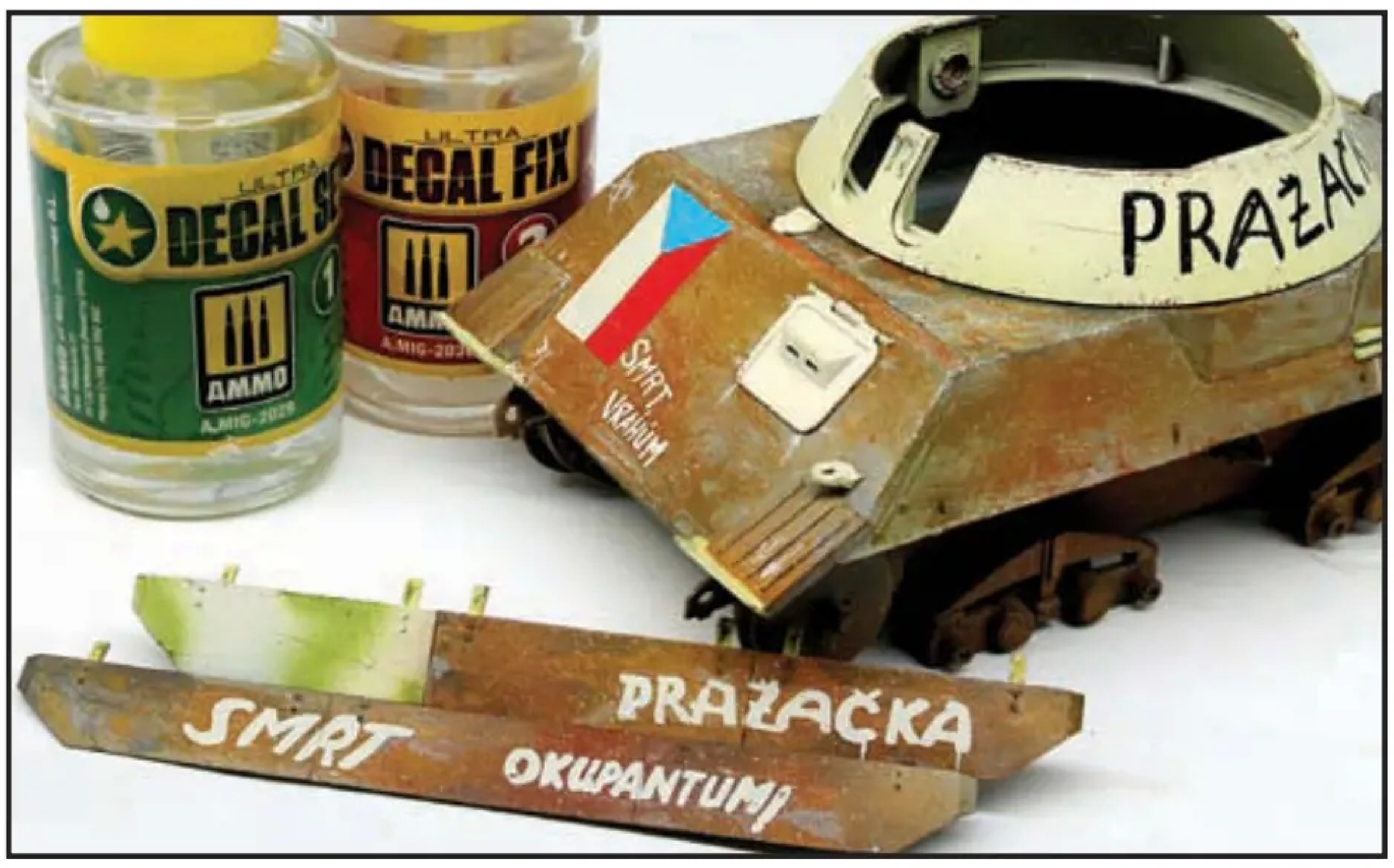

ATOM-20002
ATOM-20018
ATOM-20029
ATOM-20047
ATOM-20165
ATOM-20064
ACRYLIC COLORS
METALS

Small details, such as hatches, grab handles and such were picked with a fine paintbrush using a variety of colours.
To enhance the look of the upper panels and actually make the rusty, I speckled Atom acrylics using an old paintbrush and a toothpick. Note that the rusty pattern on these areas differ from the front and side plates.




Chipping
ATOM
Dark Rust
ACRYLIC COLORS

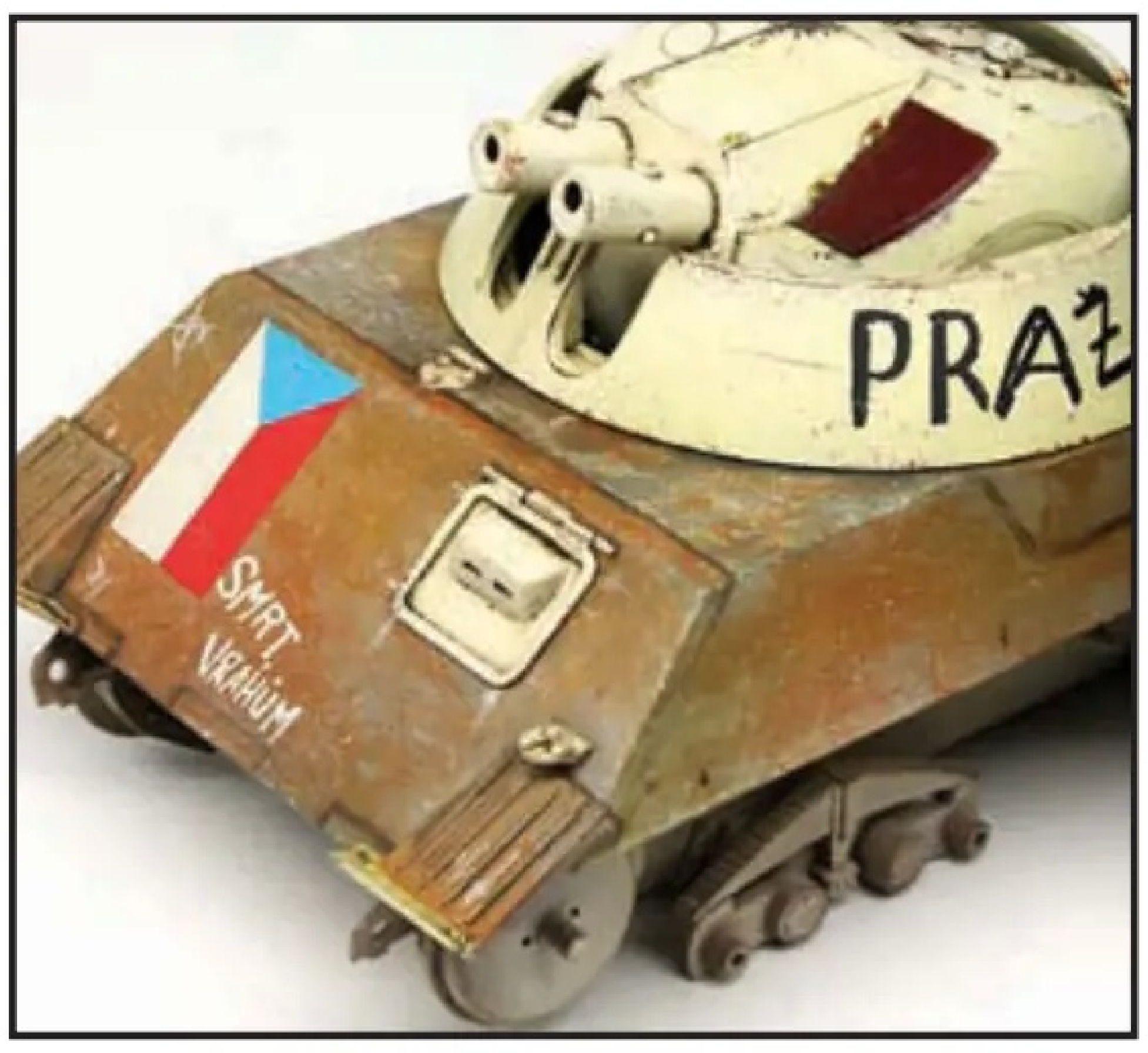
The dunkelgelb paint of the turret was chipped with a sponge and a fine paintbrush using dedicated Atom Chipping colour and Dark rust.


ULTRA DECAL SET
ULTRA DECAL FIX
AMMO
PRAŻAC
SMRT VRAHŮM
PRAŻAČKA
SMRT OKUPANTŮM

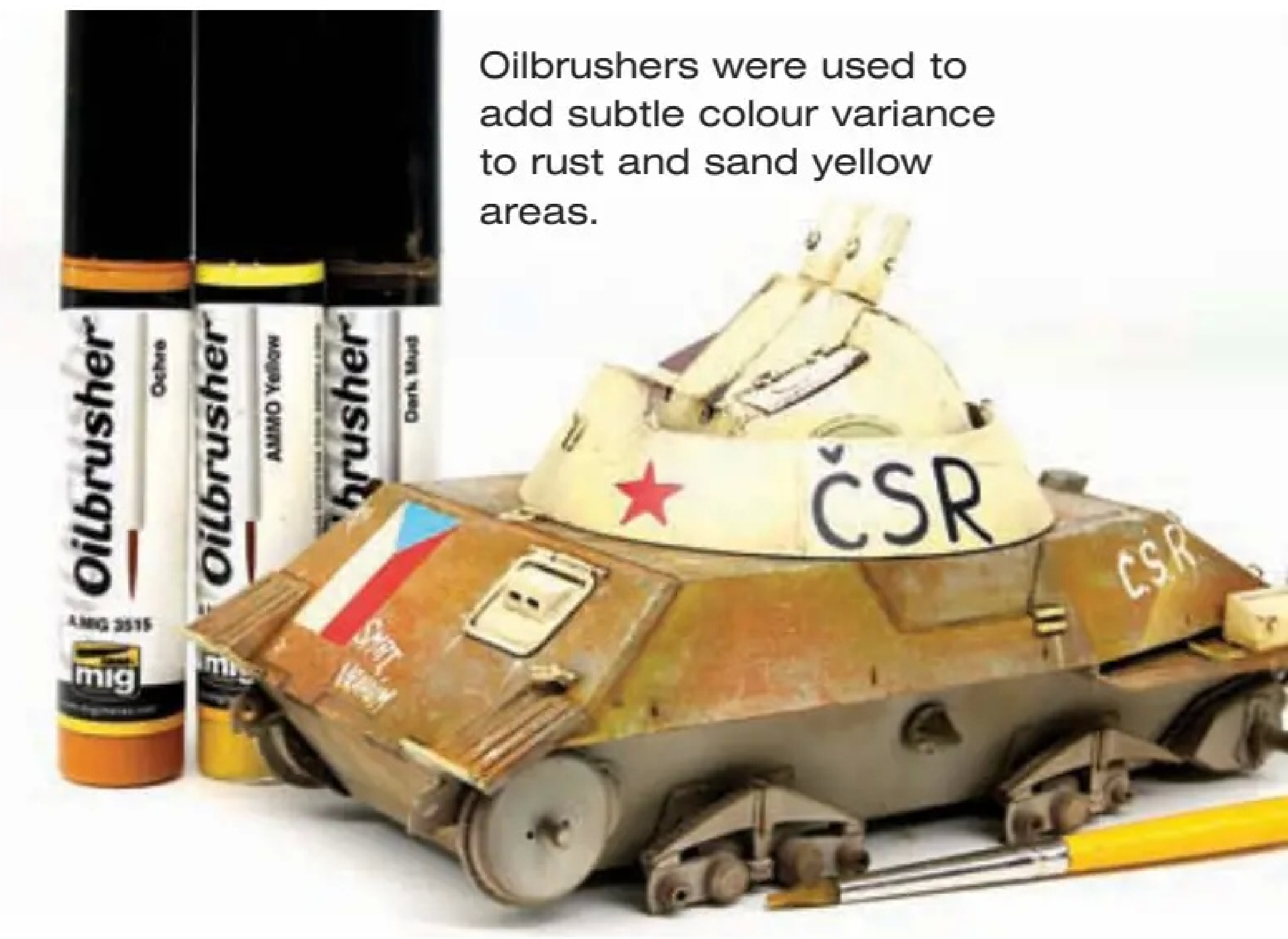
The decal application was a very positive experience. Even after some 15 years in stash the Bison decals proved their high quality! I used the decal products more because of my habit, rather than because of any actual issues with this decal brand. By the way. I mixed the markings form several vehicles form the decal sheet, but it's fine for a what-if project, i guess.

ČSR
SATIN LUCKY VARNISH
mig

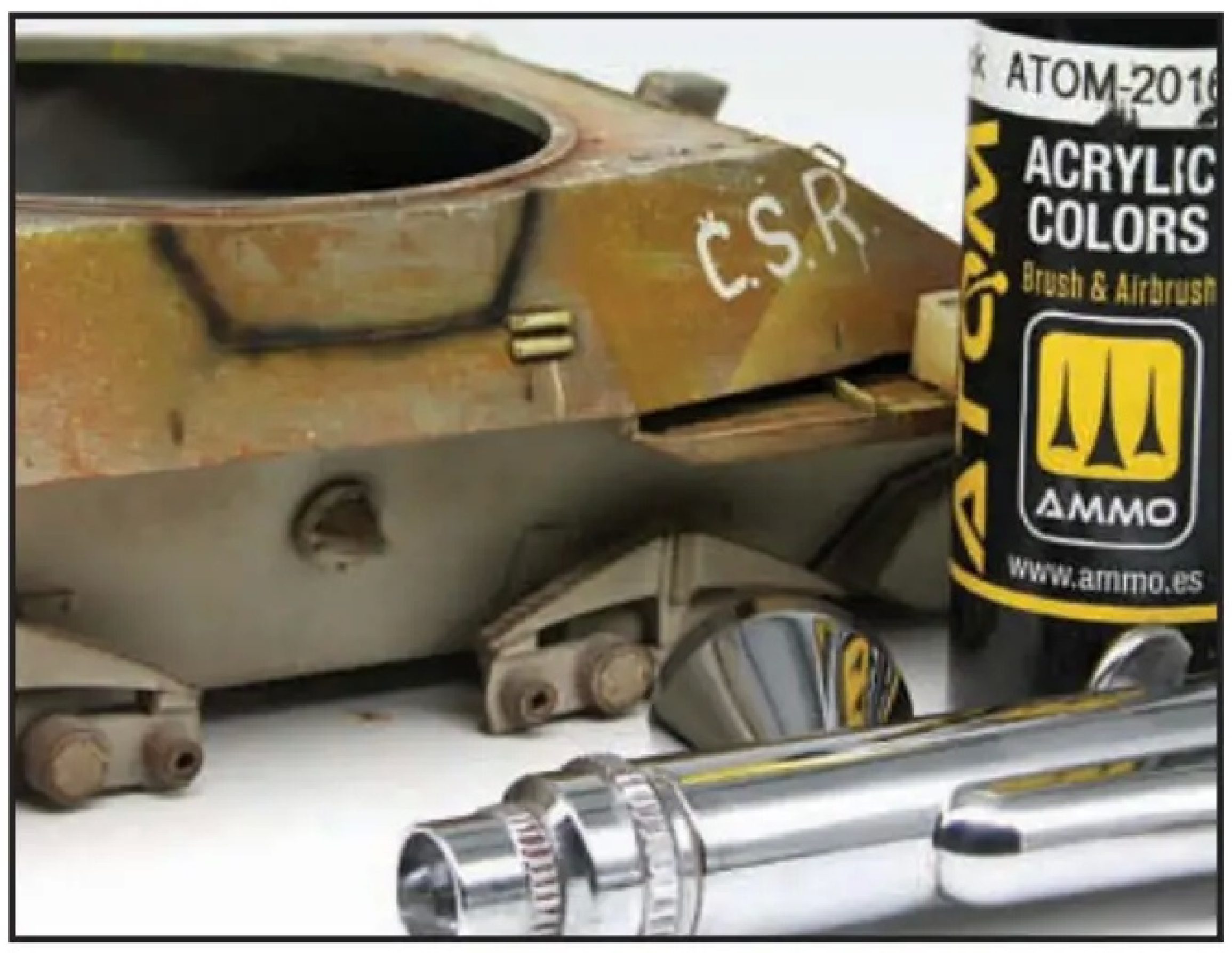
A layer of satin varnish was airbrushed to seal the decals and facilitate further weathering steps, improving the flow of washes, oils etc.


PRAŻ
SMRT VRAHŮM

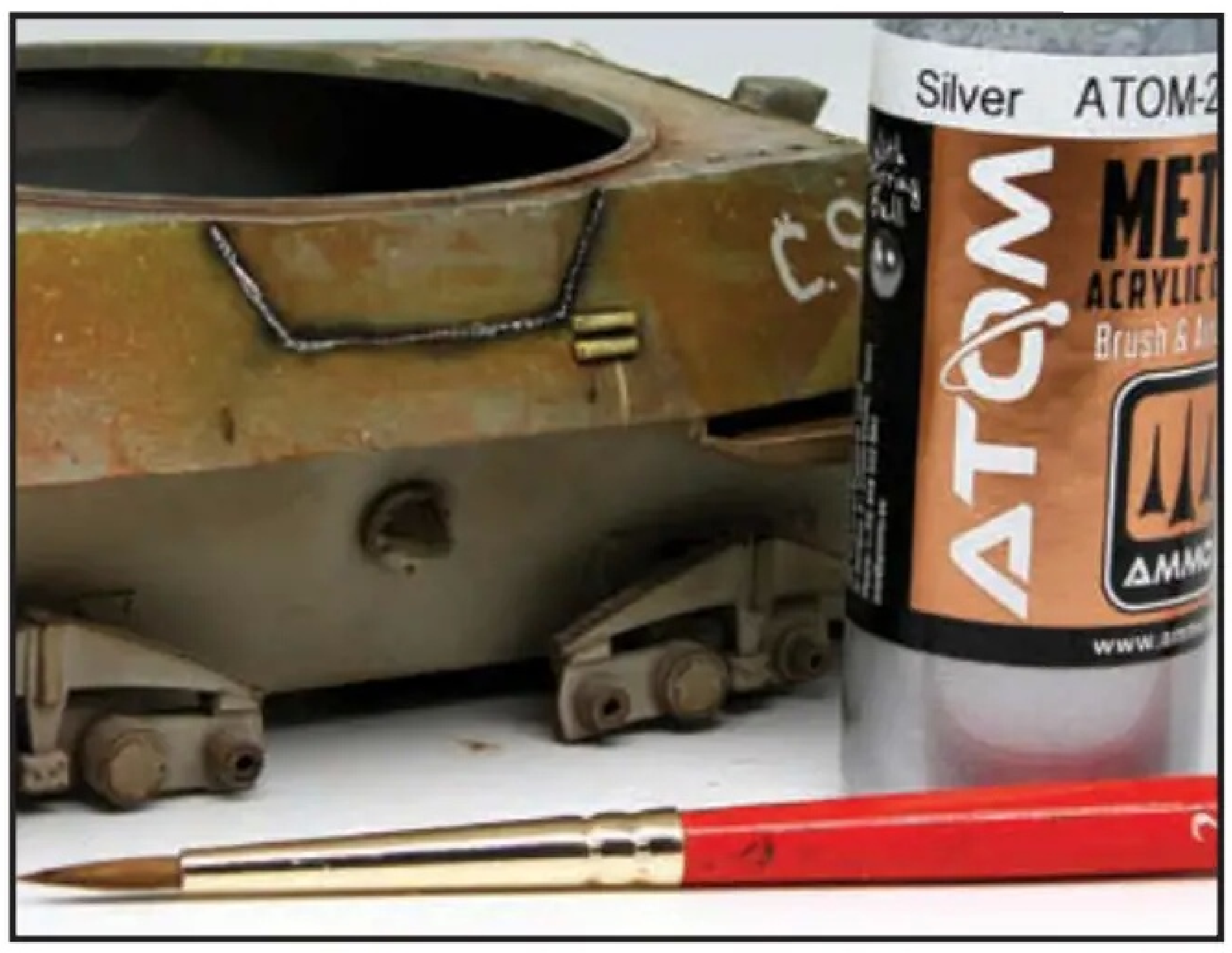
A dark wash was applied to the recessed areas and around small details.


Oilbrusher
Ochre
Oilbrusher
AMMO Yellow
Oilbrusher
Dark Mud
mig
ČSR
SMRT VRAHŮM

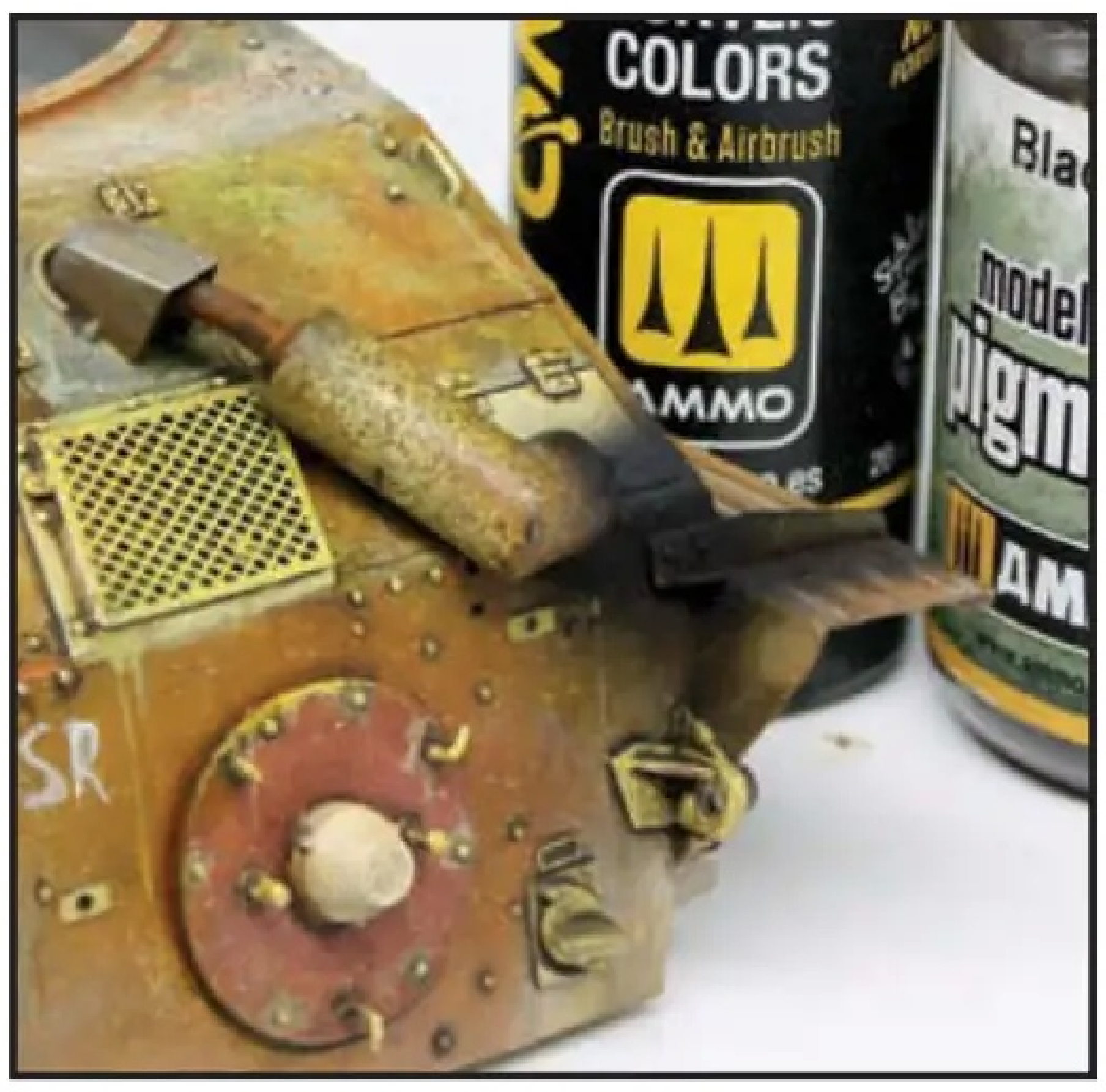
Oilbrushers were used to add subtle colour variance to rust and sand yellow areas.


Č.S.R.
ATOM-2016
ACRYLIC COLORS
Brush & Airbrush
AMMO
www.ammo.es

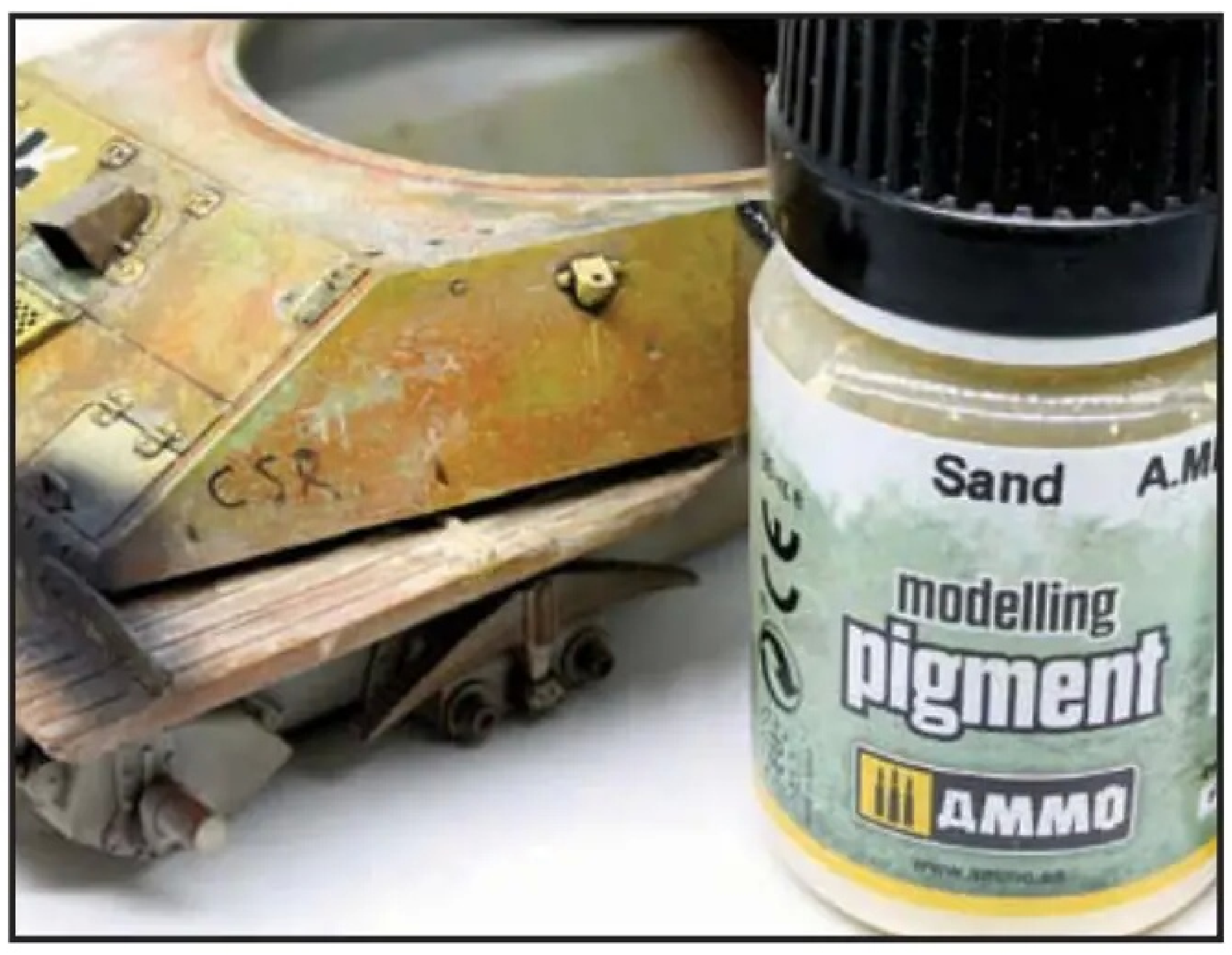
Weld beads around the bulges on the sides were first airbrushed with matt black


Silver
ATOM
METALLIC
AMMO

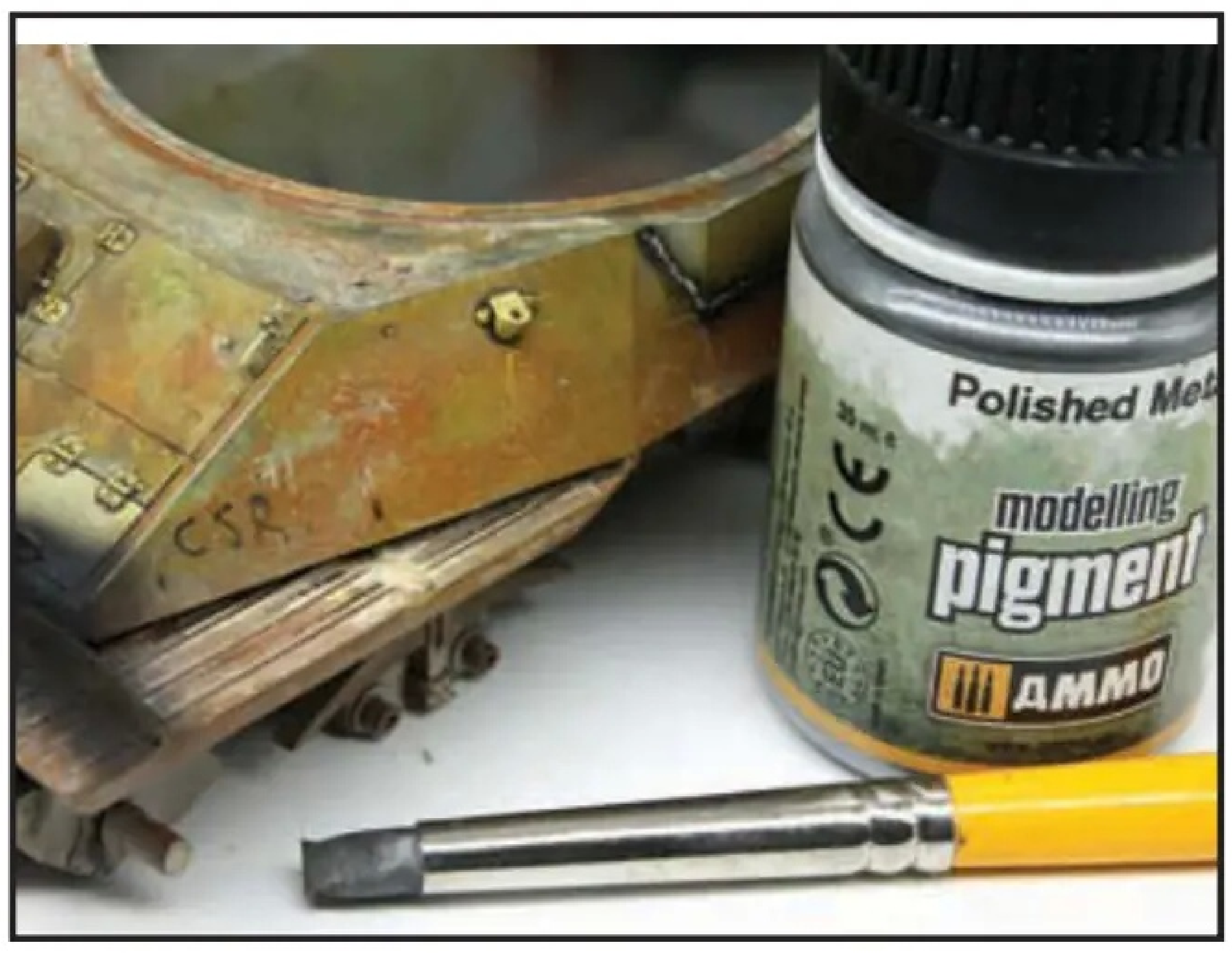
And then painted with metallic using a paintbrush to make them pop out.


ACRYLIC COLORS
Brush & Airbrush
AMMO
Black
modelling pigment

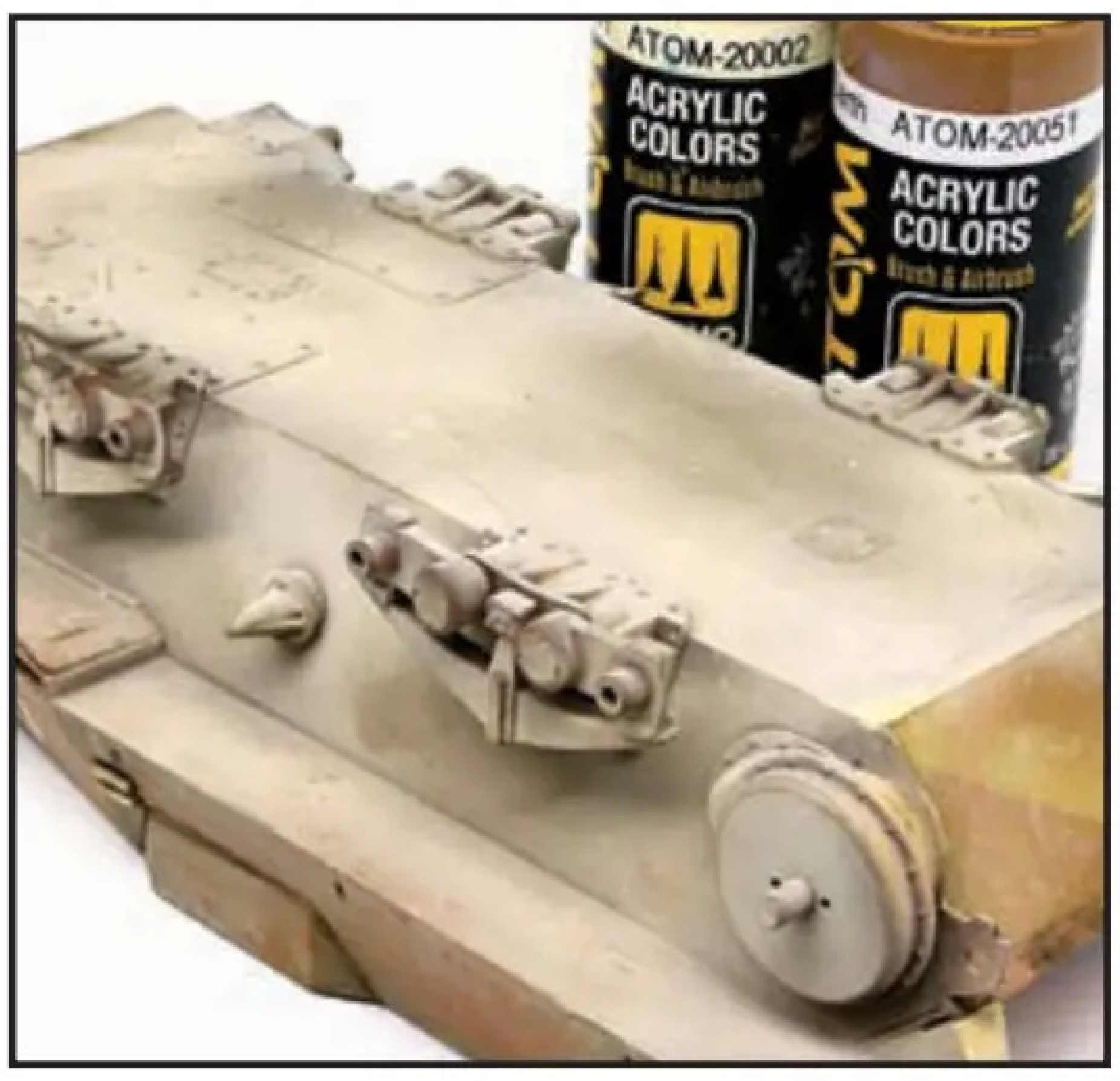
Exhaust soot was done using the same black acrylic paint and black pigment.


Č.S.R.
Sand
modelling pigment
AMMO

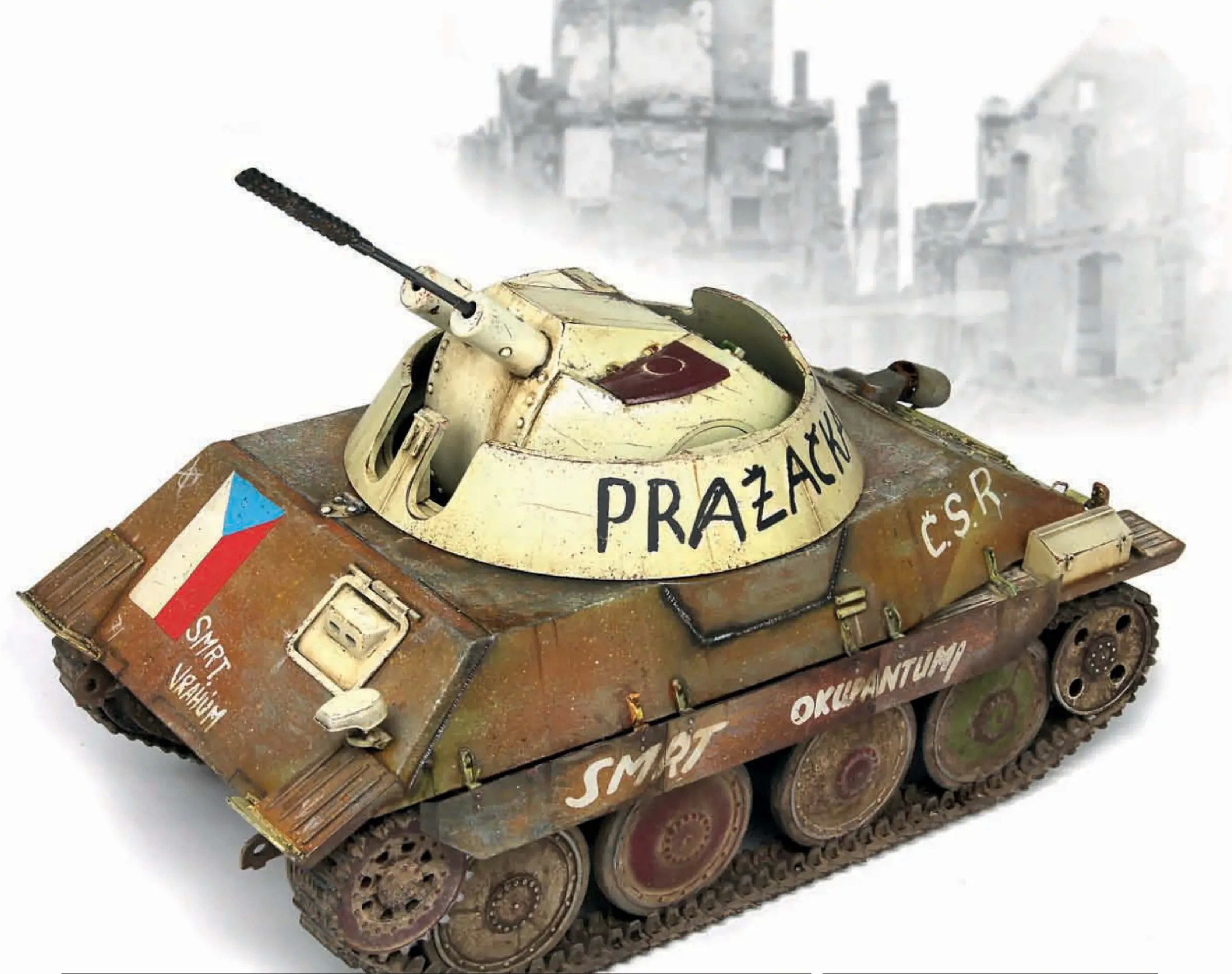
Dust pigments were applied on the fenders in a restricted manner.


Č.S.R.
Polished Metal
modelling pigment
AMMO

Then metallic pigment was rubbed with a rubber tipped brush to imitate natural wear.


ATOM-20002
ACRYLIC COLORS
ATOM-20051
ACRYLIC COLORS

Overall layer of dust was airbrushed over the lower hull.


PRAŽAČKA
C.S.R
SMRT, VRAHUM
SMRT OKUPANTUM

it was followed by general dark mud streaking using enamel products, blended with saw-shape brush moistened in enamel thinner.

Fresh Mud
nature effects
AMMO
North Africa Dust
Light Dust
nature effects
mig

Light and dark mud speckles were applied with more enamels using an old brush rubbed against a toothpick.

Oilbrusher
Oilbrusher
Dark Brown
PRAŽAČKA

Subtle general streaking was applied on the turret using the saw saw-shaped brush. Oilbrushers were applied out of the jar and then blended with the brush moistened in enamel thinner.

More pronounced streaks were painted and blended individually using a fine paintbrush.

C.S.R
OIL PAINT + BRUSH

Spilt fuel effects were applied by mixing Effect brushes with dark oil. This step pretty much concluded the hull weathering.

ATOM-20084
ATOM-20029
ATOM-20047
ATOM-20002
ATOM-20163
ACRYLIC COLORS
AMMO

The wheels were airbrushed in several colours and then the rubber tyres were brush-painted with dark grey.

Mud and dust on the wheels was applied using pigments and enamels.

oil/lubricant leaks were individually applied using the same products as with the spilt fuel.

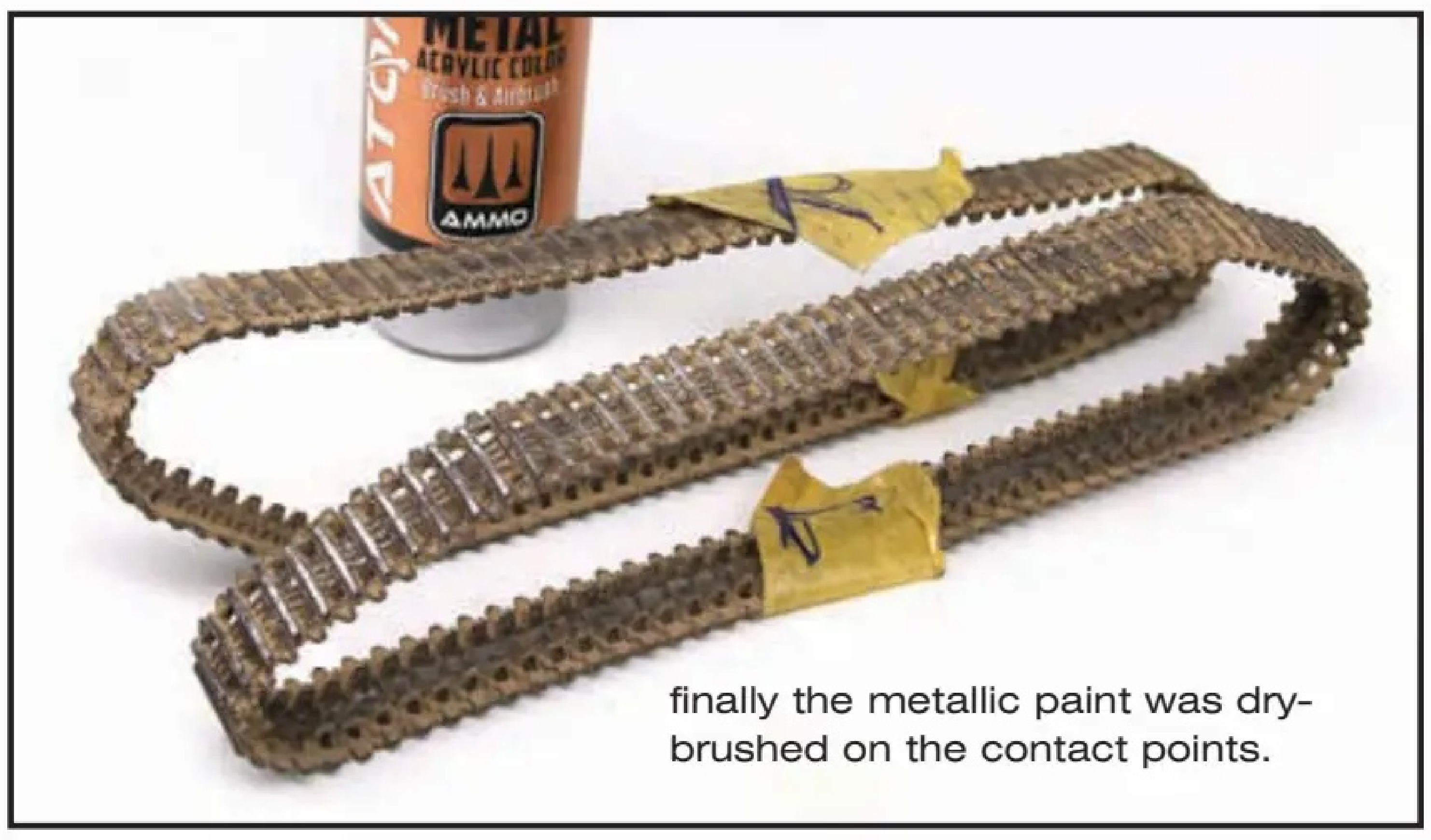
fresh engine oil
brusher
Oilbrusher
AMMO
A.MIG-1800
A.MIG-3512
Marrón Oscuro

finally metallic paint was used to emphasize the areas where the wheel contact the tracks.

ATOM-20164
METAL
ACRYLIC COLOR
Brush & Airbrush
ATOM
AMMO

the tracks were primed with dark brown mix. then they were dusted with Negev Sand pigment. It was first mixed with enamel thinner and applied as a heavy wash. Once dry, the excess pigment was removed with an old paintbrush.

Negev Sand
modelling
pigment
AMMO

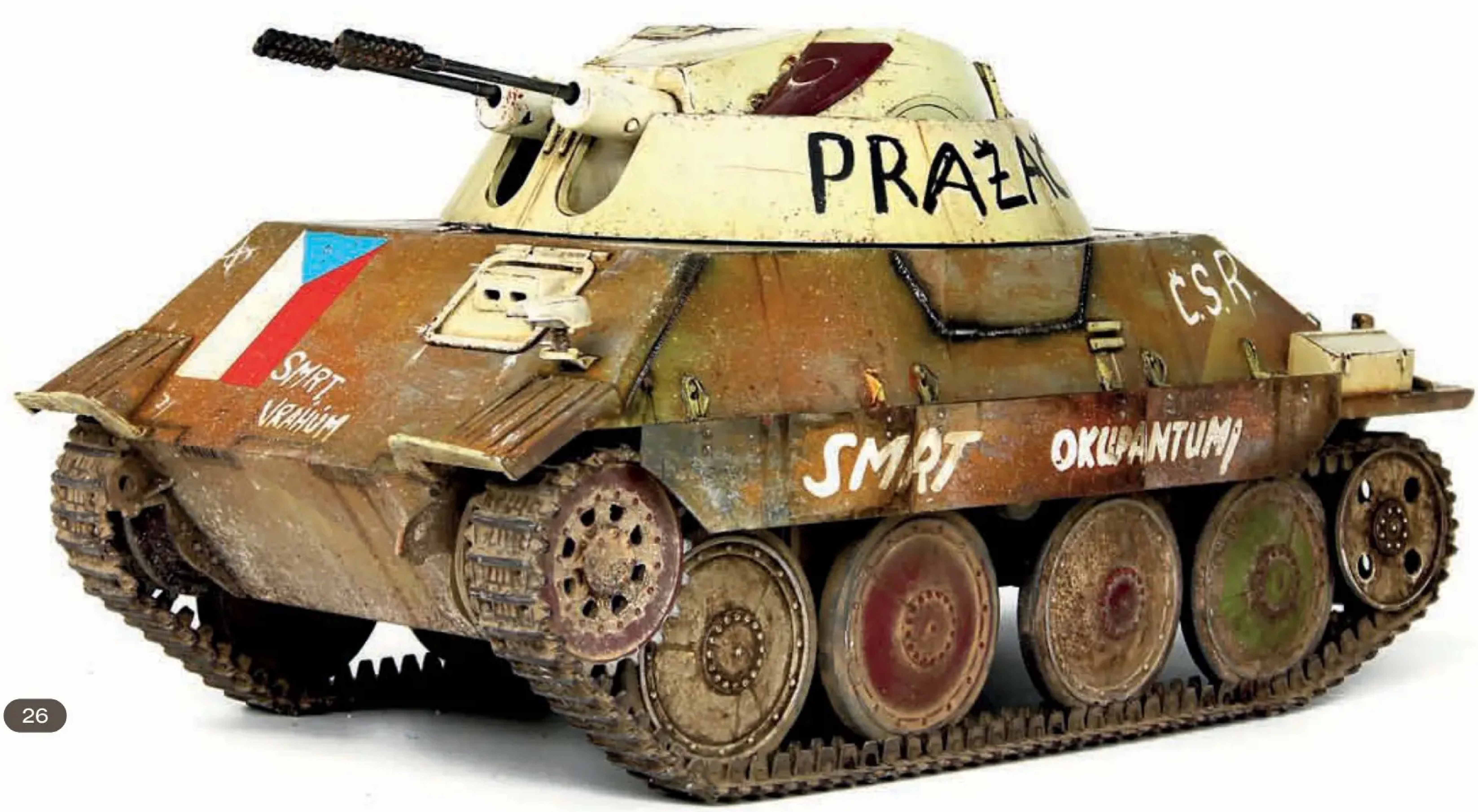


finally the metallic paint was dry-brushed on the contact points.

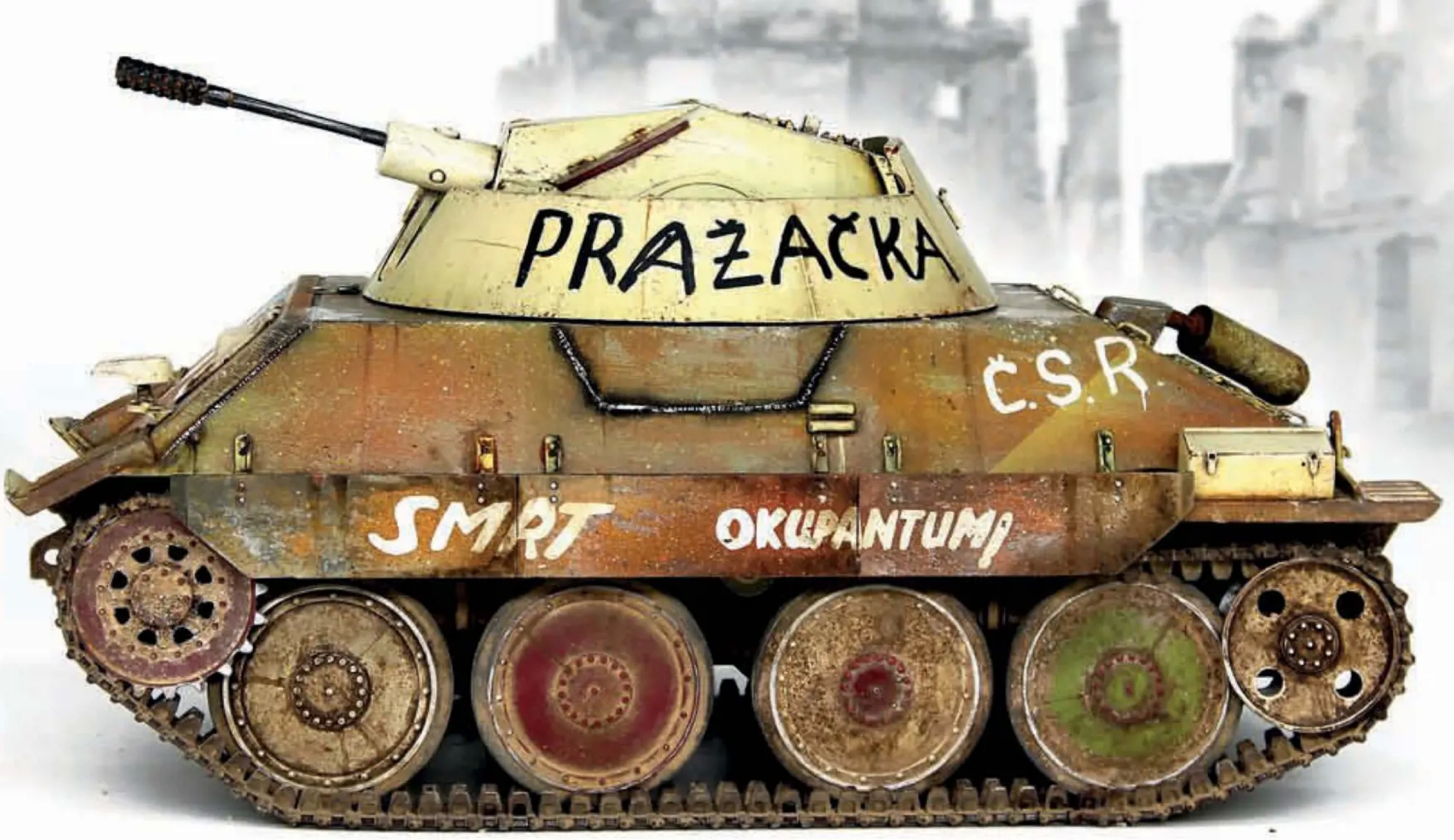
METAL
ACRYLIC COLOR
Brush & Airbrush
ATOM
AMMO

Polished Metal
Polished Metal A.MIG-30
modelling

The last step was rubbing the metallic pigments on the twin Flak barrels with my fingers.



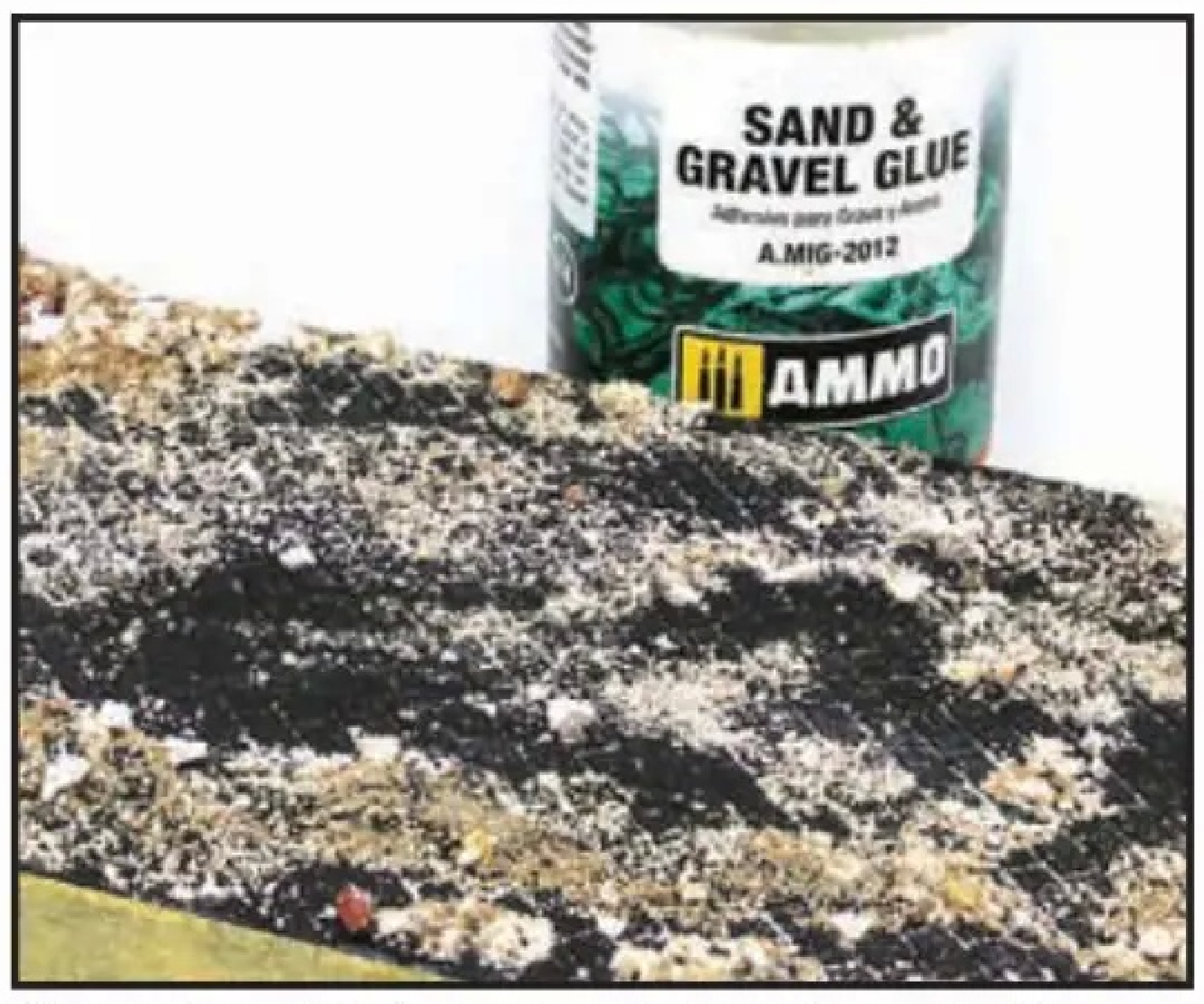
PRAŻA
ČSR
SMRT
VRAHŮM
SMRT
OKUPANTŮM


PRAŽAČKA
Č.S.R
SMRT OKUPANTUM!

i decided to make a small cobblestone based for the model.
A piece of styrofoam was cut with a hot wire cutter, its sides were covered with black styrene. The top cobblestone texture is a piece of Miniart cobblestone sheet.

A-STAND
Lacquer Primer
AMMO

It was primed in black. This step was redundant, as it turned out be.


SAND &
GRAVEL GLUE
A.MIG-2012
AMMO

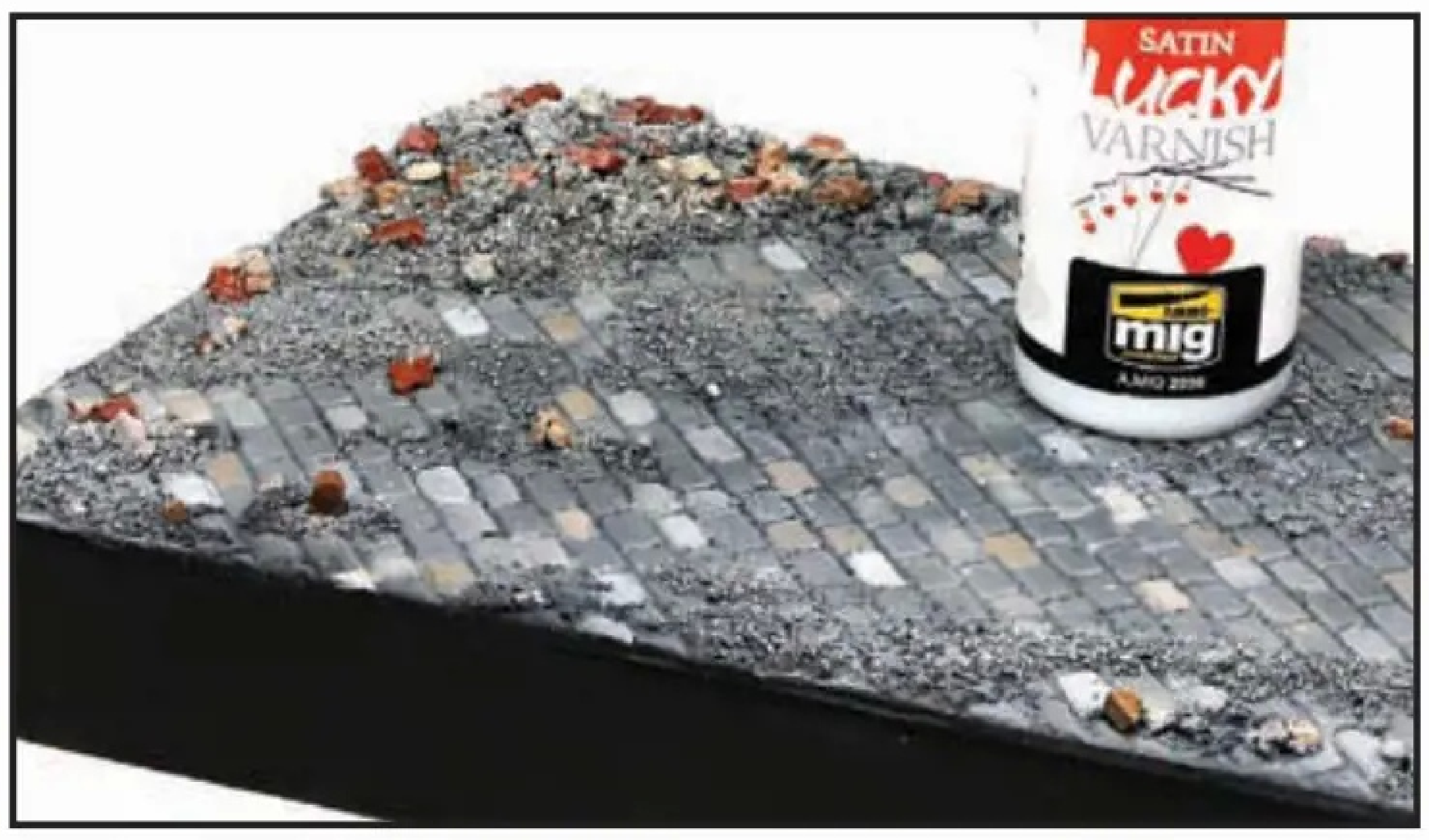
City ruins debris was made using small pebbles, sand, broken plaster, commercially and self-moulded bricks. To fix the debris in place, i used Ammo Sand & Gravel Glue. Note, that it takes time to set and dry completely.

A-STAND
Lacquer Primer
AMMO

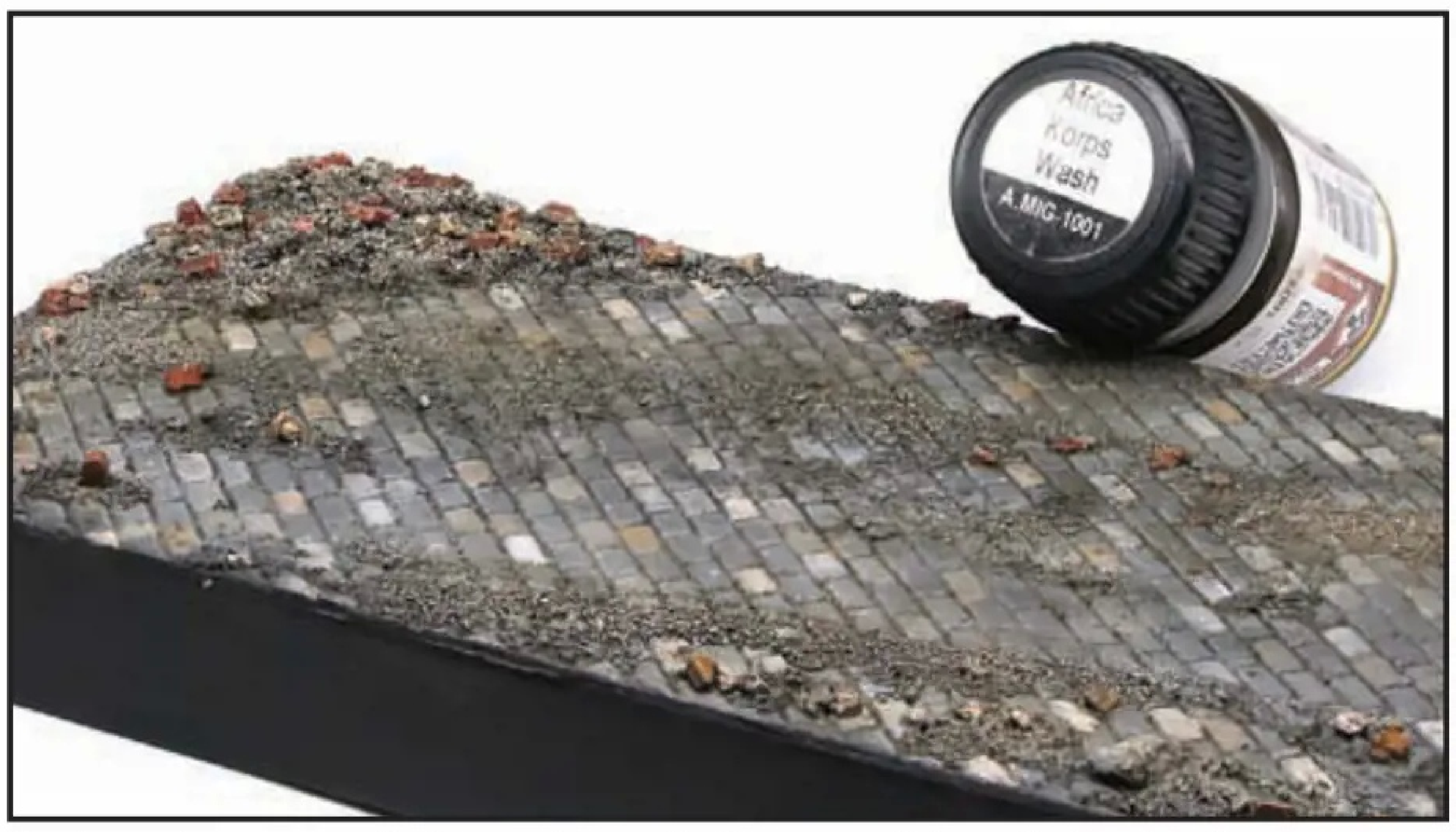
With the rubble in place I had to prime the base once again.

ATOM
ACRYLIC COLORS
AMMO

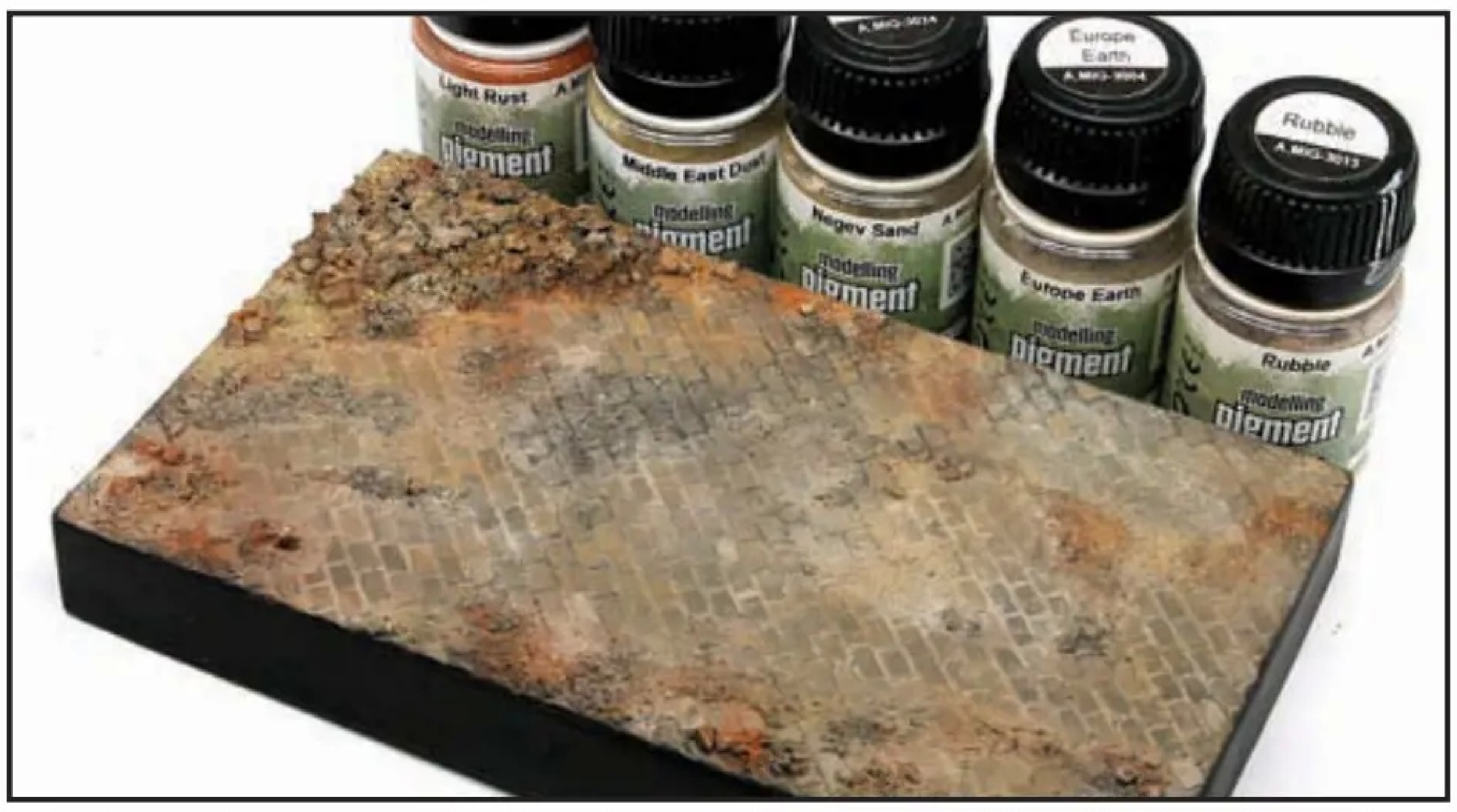
Several mixes of light and medium gray were sprayed over the cobblestone and rubble.


SATIN
Lucky
VARNISH
mig

Then I dry brushed the details and picked individual stones and bricks with a fine brush using Ammo acrylics.
satin coat was used to seal the job and facilitate further washes and dusting.


Africa Korps Wash
A.MIG-1001

Dark wash was applied over the entire base, unifying all the details.


Light Rust
Middle East Dust
Negev Sand
Europe Earth
Rubble
modelling pigment

Dry pigments were applied liberally over the base significantly changing and improving the realism of the base.

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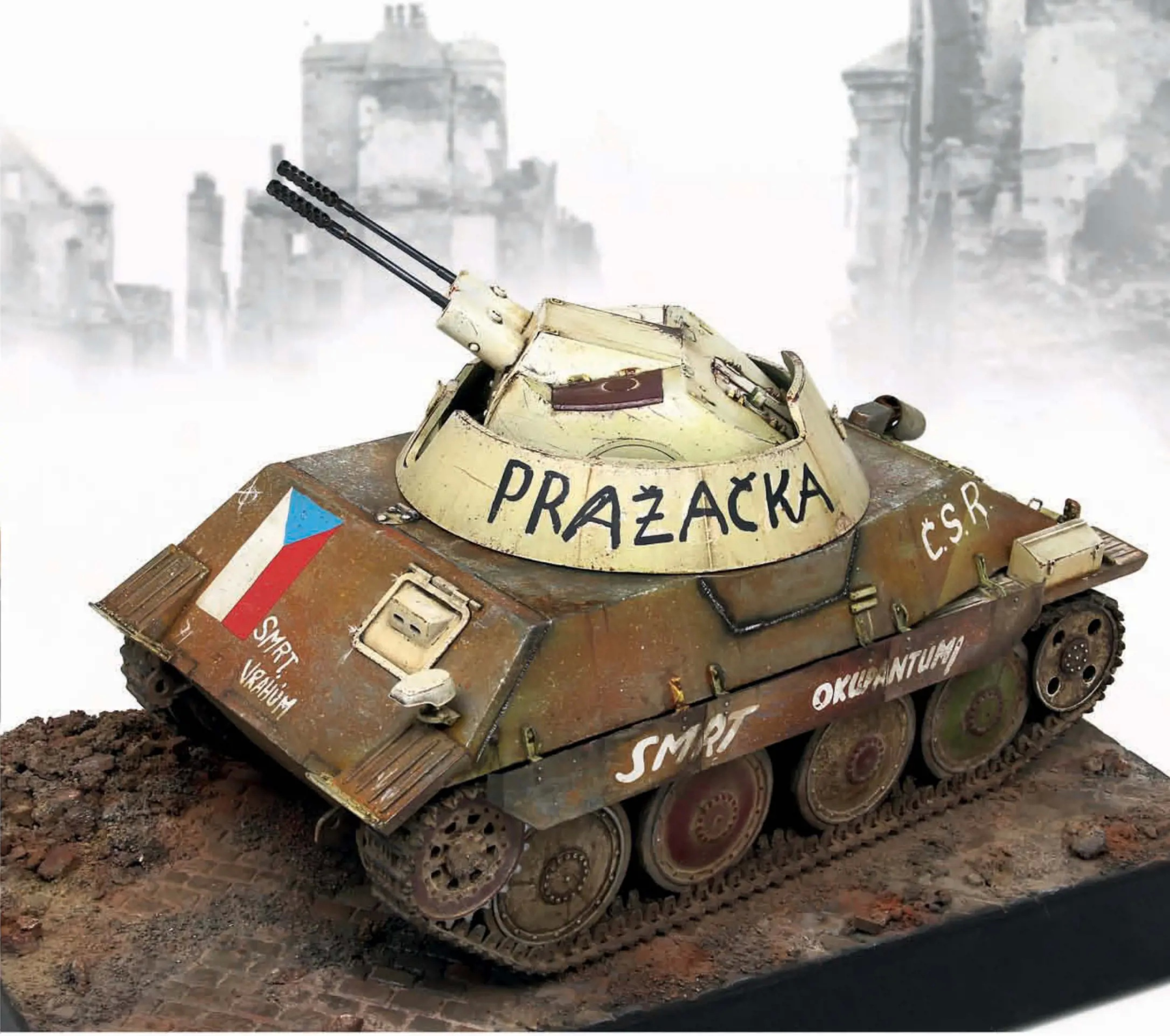
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SMRT OKUPANTŮM

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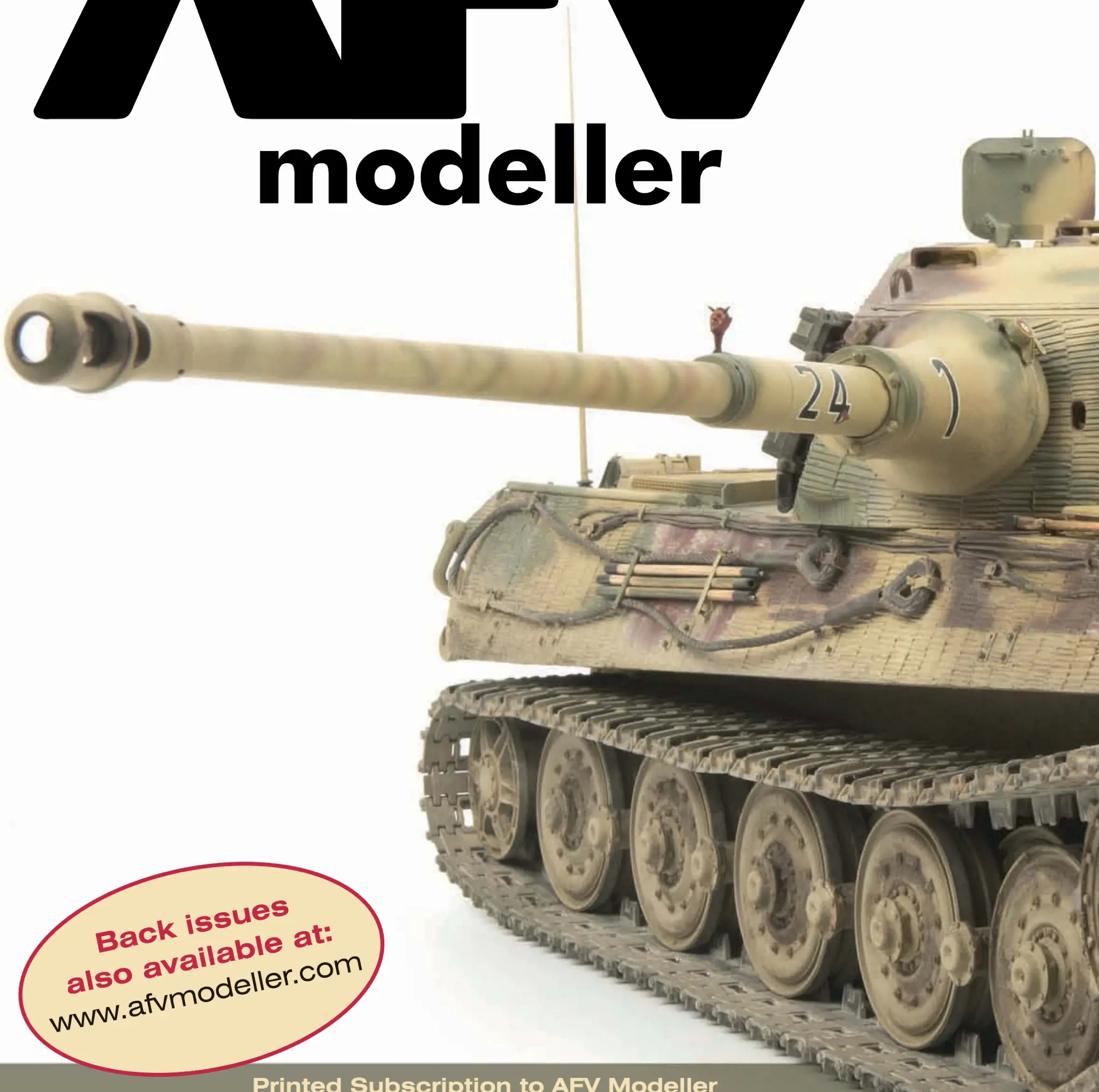
AFV
modeller



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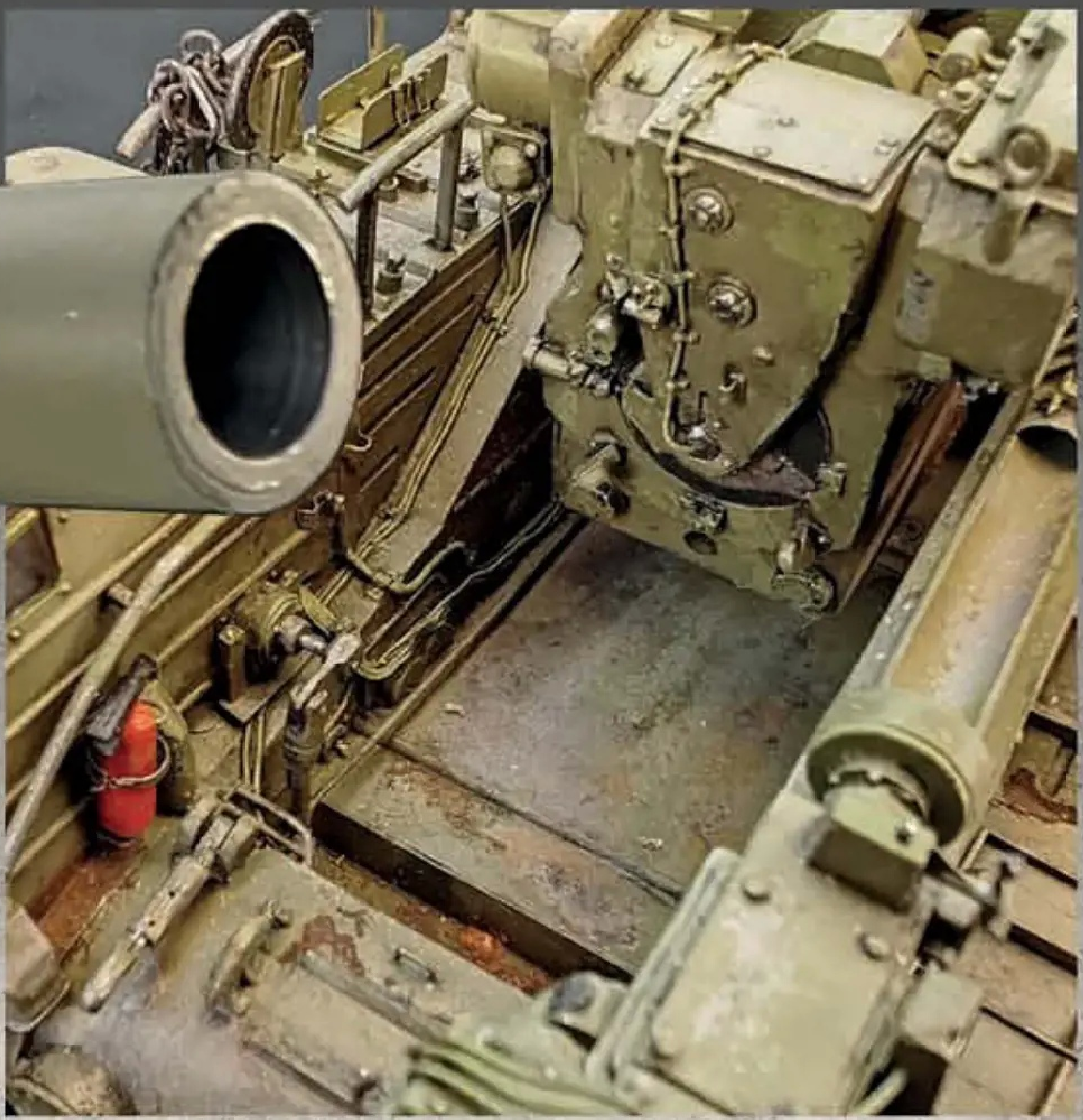


MONSTER

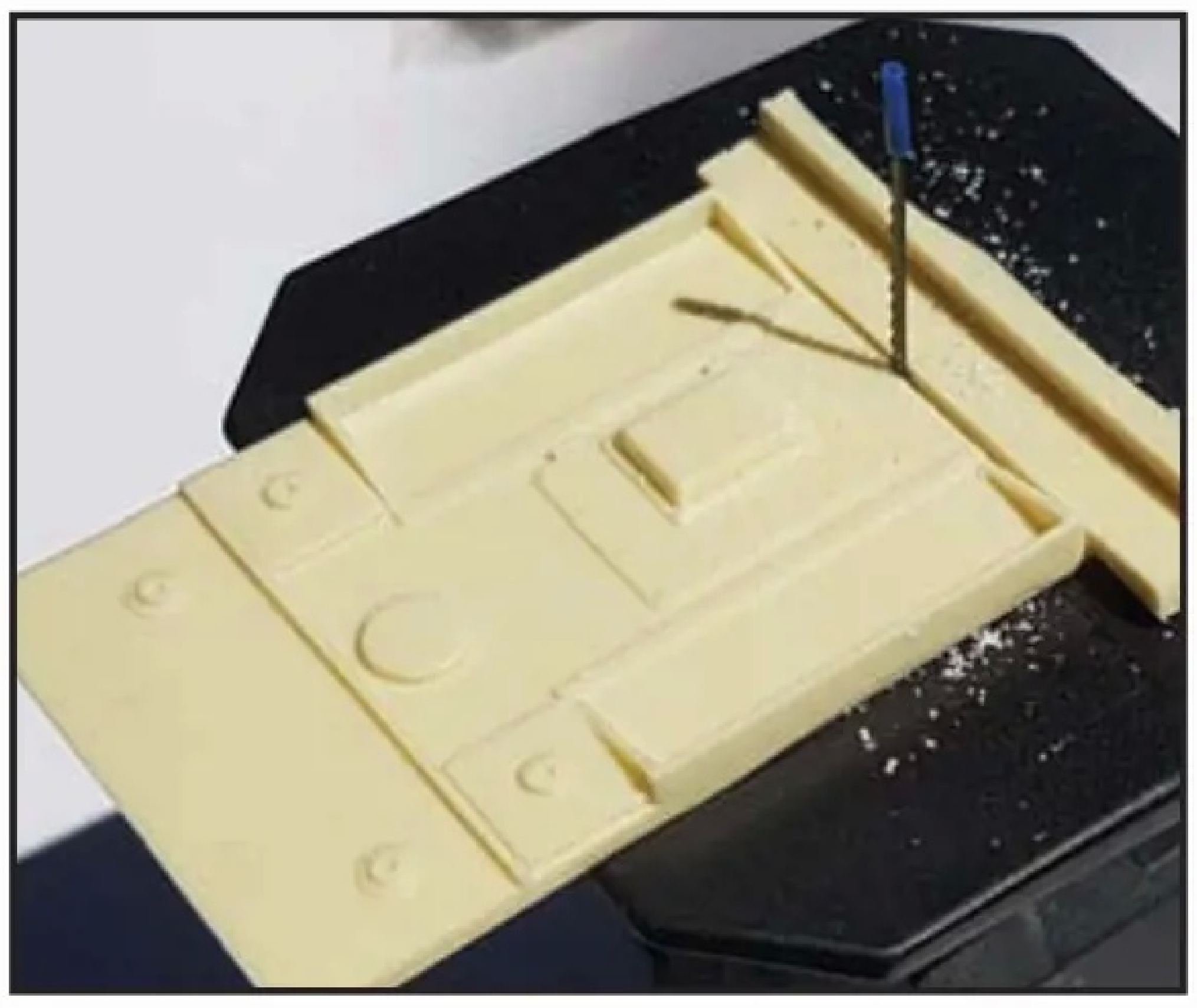
KAREL SUTT BUILDS THE PANZERSHOP 2A3 KONDENSATOR NUCLEAR HOWITZER

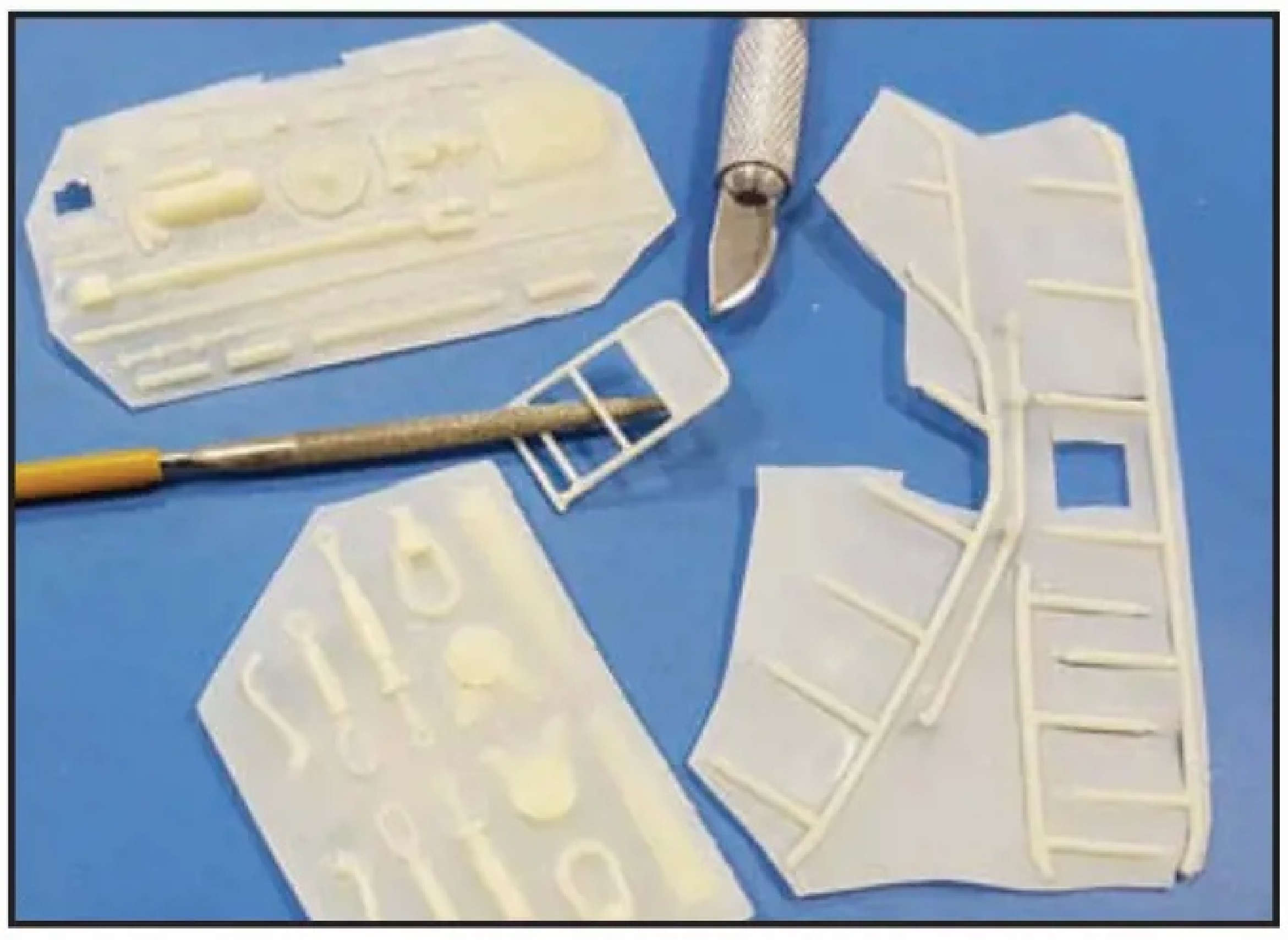
NUCLEAR MADNESS

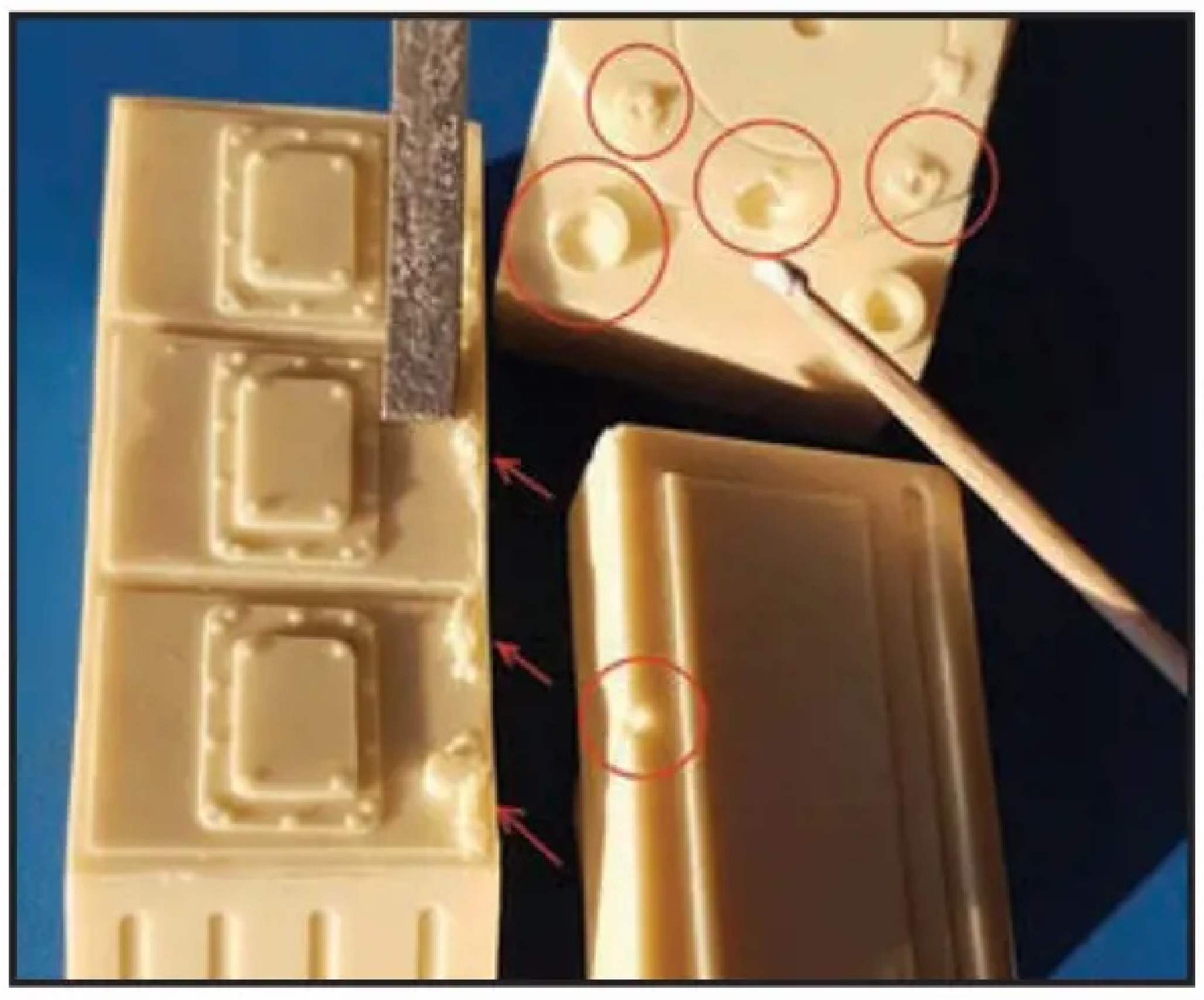
A couple of years ago I visited the 'E-Day' Model Show and my attention was drawn to the Panzershop stand where they presented an unpainted, built kit of the 2A3 Kondensator howitzer on a turn table. In 1:35 scale the first impression was stunning and generated enormous excitement among the modelling fraternity including me of course! I should point out that at that time Panzershop was the only producer of this long-nosed monster so basically the only way to have one in 1:35. Trumpeter's 2A3 was still far off on the horizon. Additionally there was a buzz going around that Panzershop stopped the 2A3 production and the kits on the stand were the last available. Good reason to open the wallet. Truth is the price circa around 200 dollars was out of the regular kit range but no wonder for this resin monster.

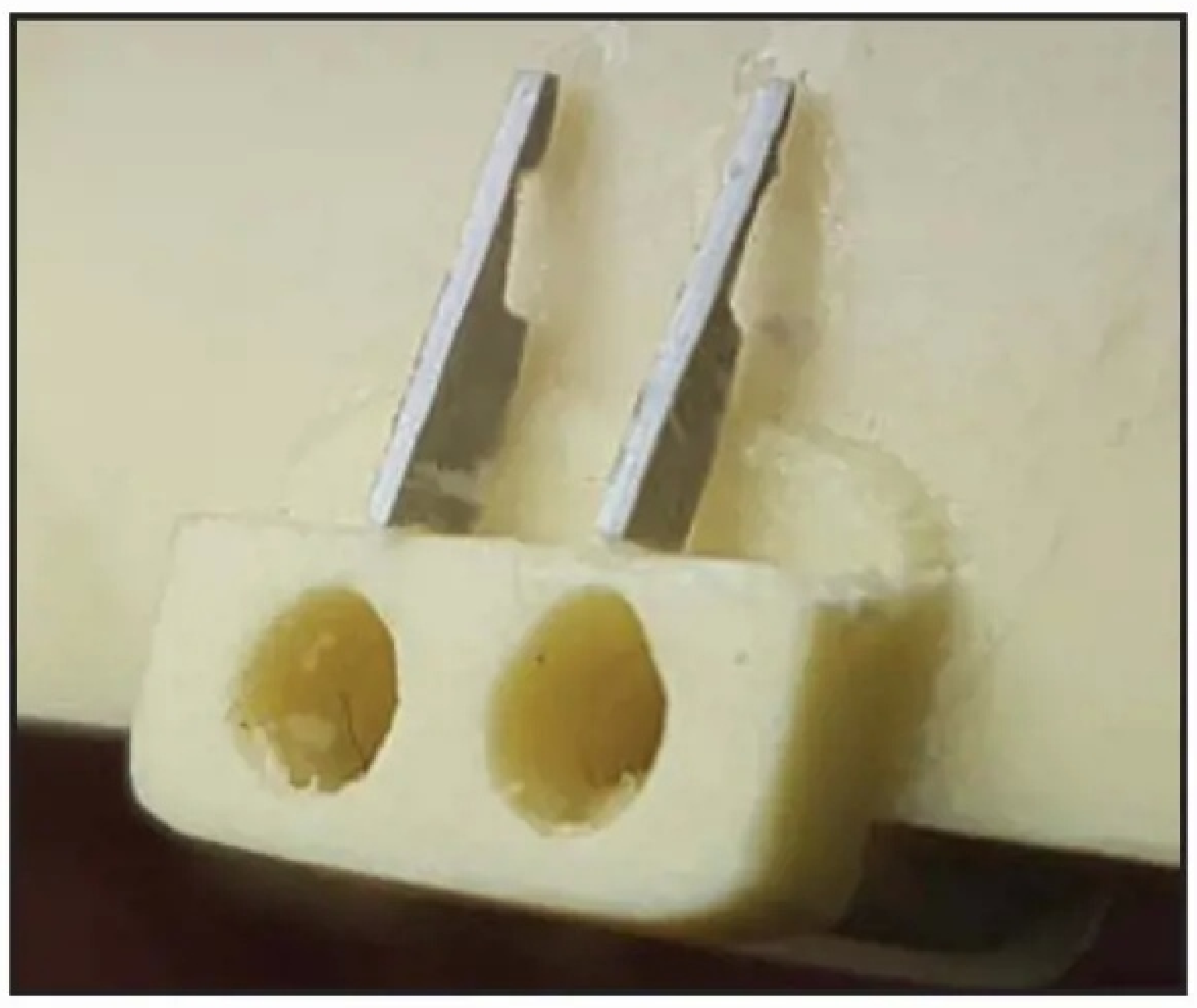
POTTED HISTORY

A U.S. mobile nuclear howitzer, M-65 280mm 'Atomic Annie' deployed in Germany in 1953, was the first stimulus leading the Russians to think about an appropriate response.
The development of new long-range artillery capable of firing nuclear munitions at distances greater than 25km began in 1954.
The 2A3 Kondensator a super-heavy artillery piece designed to counter the M-65 was completed on 26 December 1956 at the Leningrad Kirov Plant. The modified appropriately oversized chassis was based on the T-10M heavy tank and the barrel SM-54 was of a totally new design. Total production only amounted to four vehicles.
These monsters were supposed to fire 406.4mm calibre shells weighing 570 kg at a distance of up to 25 kilometers. Prefered targets were troop concentrations and communication centres.
They attracted the most attention during the October parade on Red Square in Moscow, where they were incorporated as part of a mechanized column.
Impressive gun for the 'catwalk' but not for real life practicality.
Kondensator suffered from many limitations such as extremely heavy recoil of the weapon which resulted in chassis damage or breakage. Next, hiding the target with an impressive length and height was logistically difficult so easy pickings for any aircraft.
Finally early onset of the tactical rocket systems 2K4 Filin, 2K1 Mars and 2K6 Luna significantly simpler, cheaper and having a longer range pushed the howitzer into retirement.
One of them has survived to this day as a static exhibit in Moscow.
The other three were scrapped.

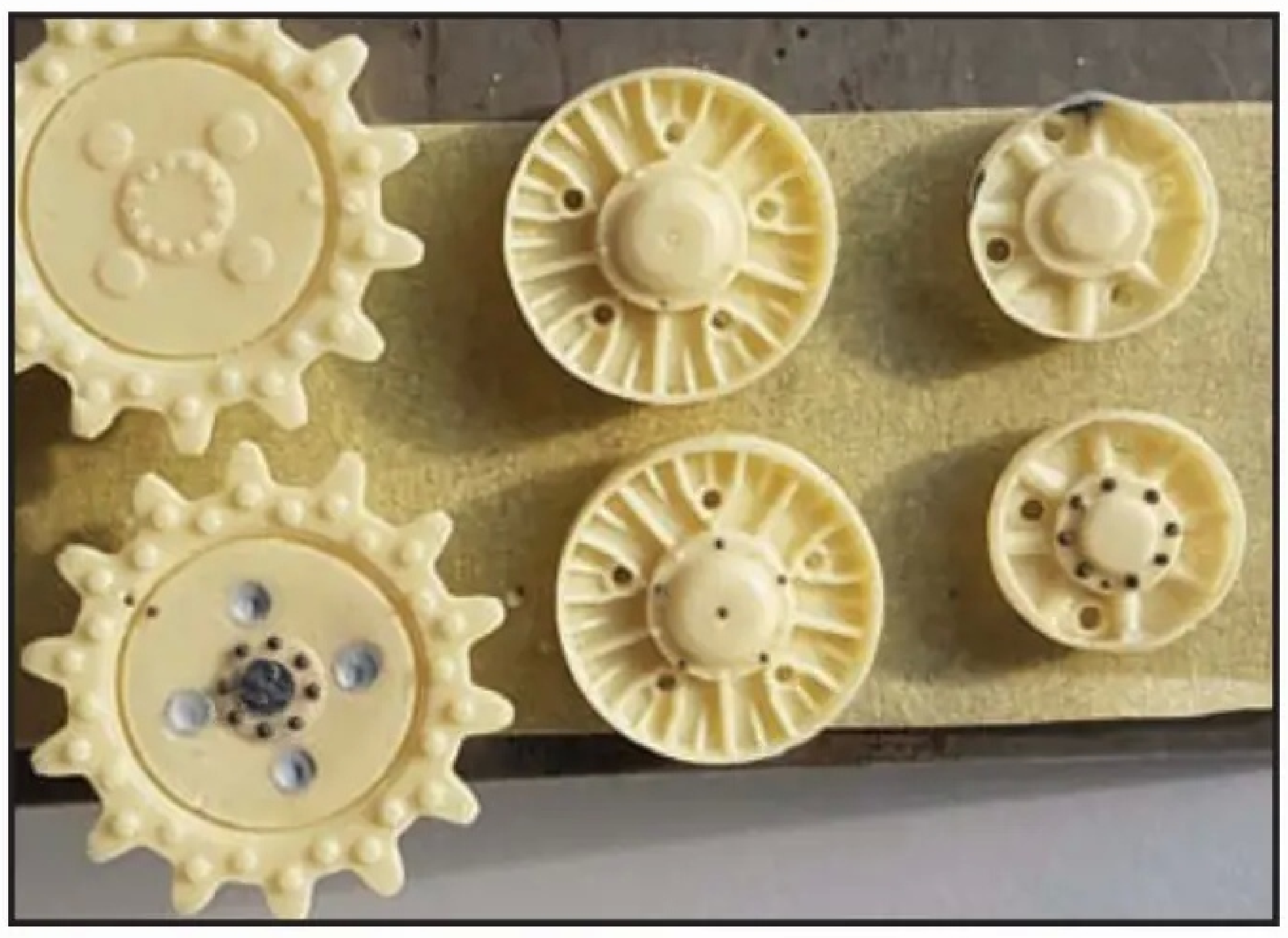

For separating less fragile resin parts from the huge casting block I used a mini-scroll saw.

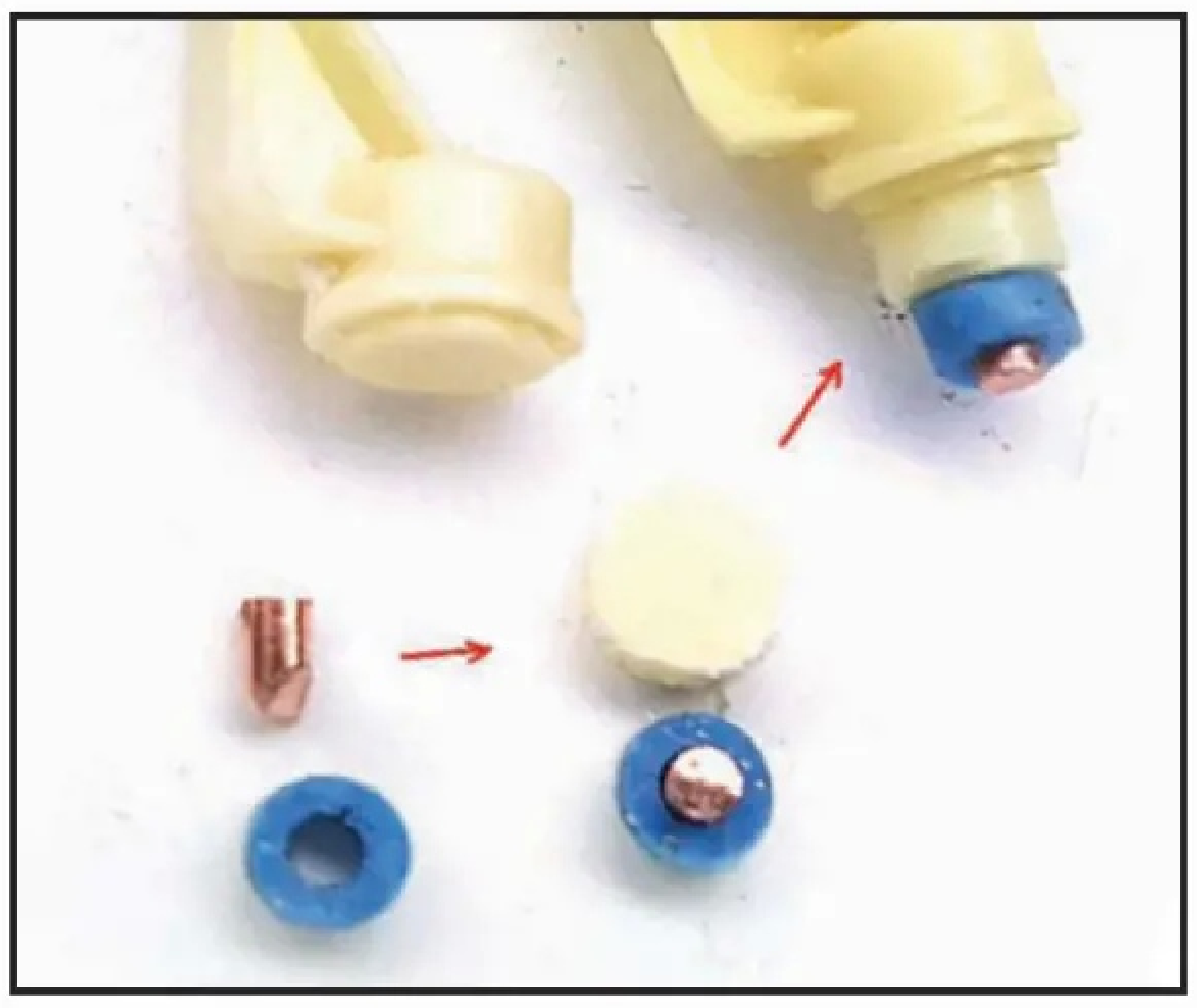

The most fragile resin parts were released with a brand new half-round scalpel, of course immediately after they had been heated gently to make the resin less brittle. Tricky job demanding a great deal of patience

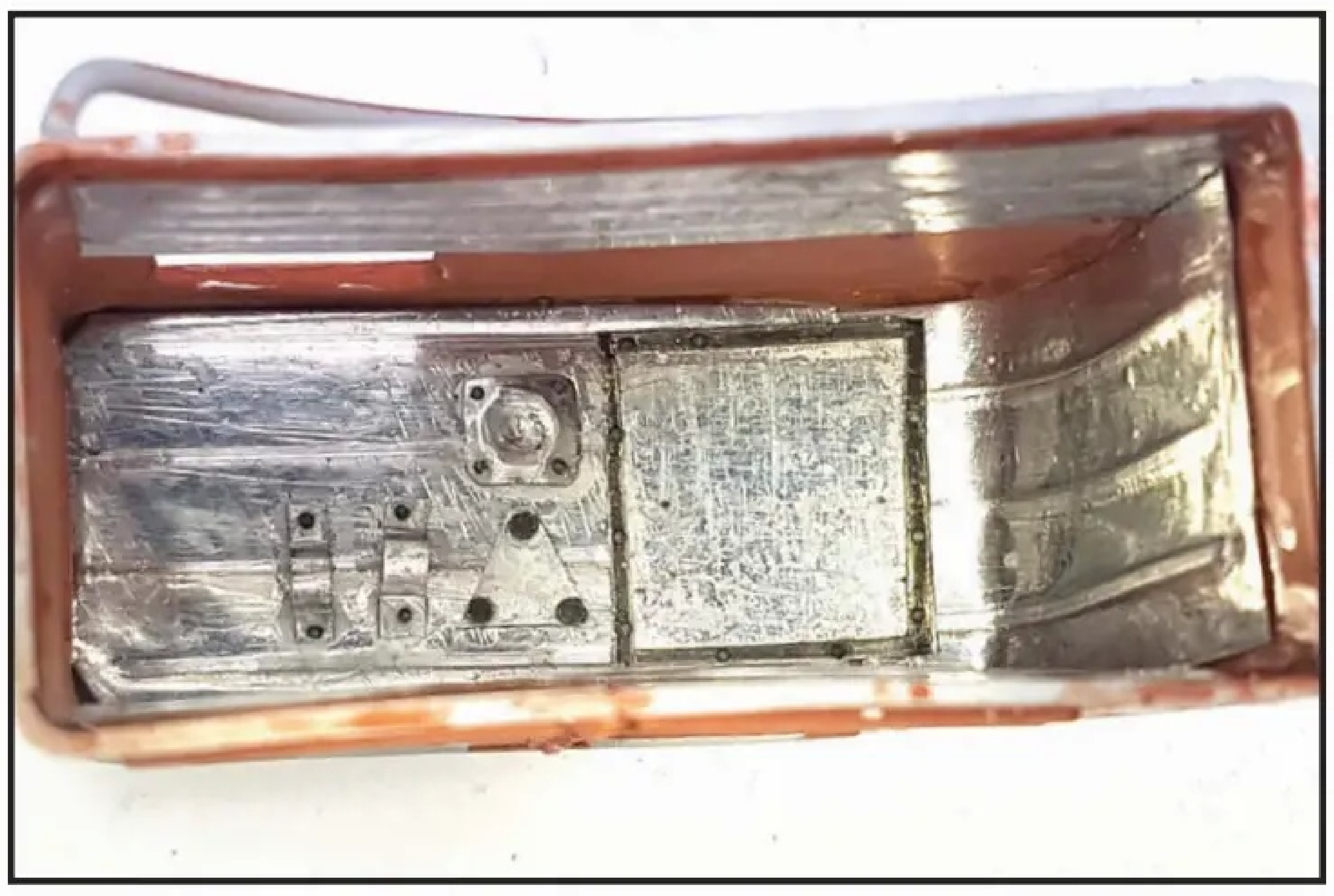

The parts showed many imperfections requiring sanding or filling to make good.

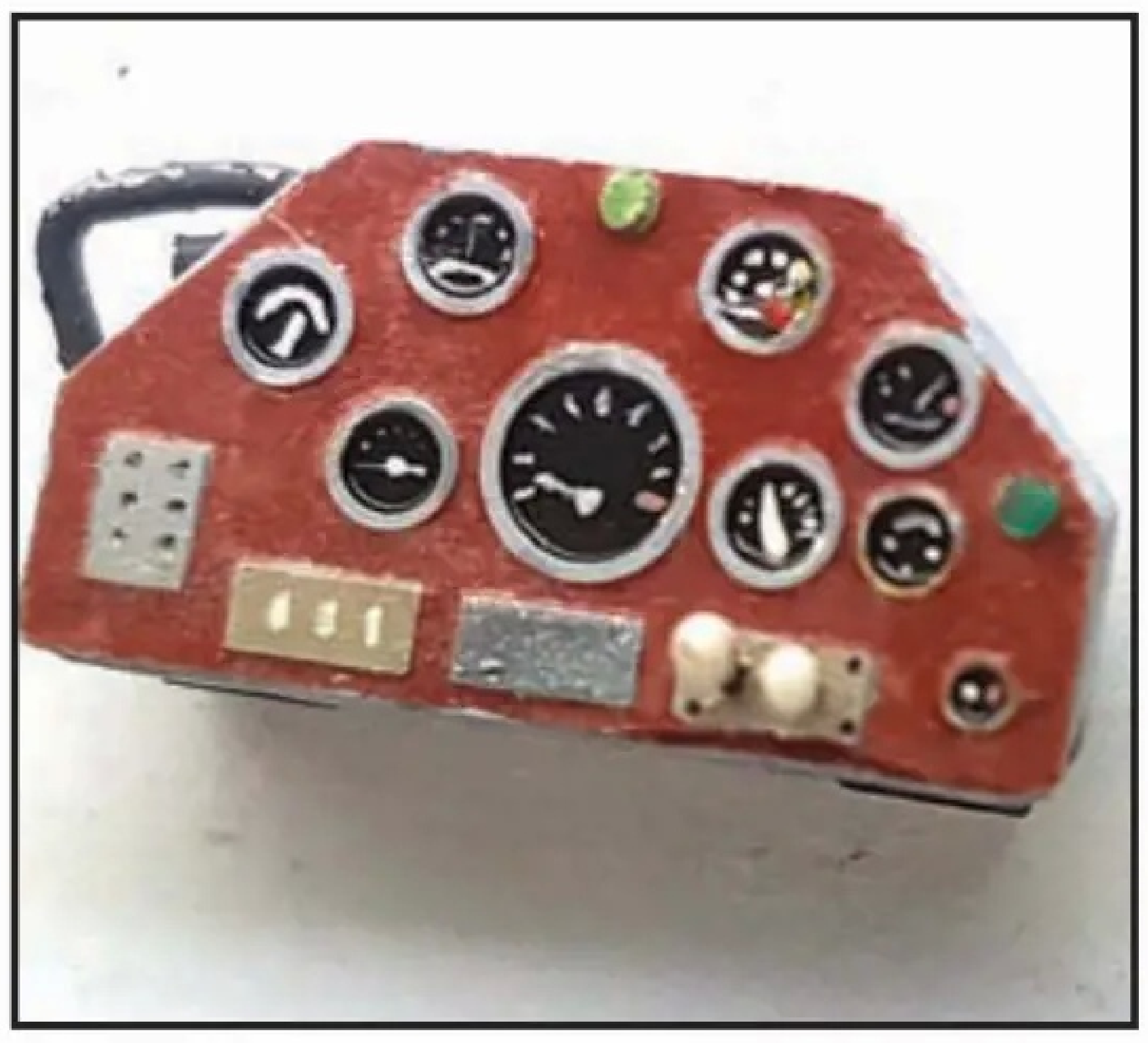

Following a reference photo I added some plastic strips at the bogies as missing reinforcements.

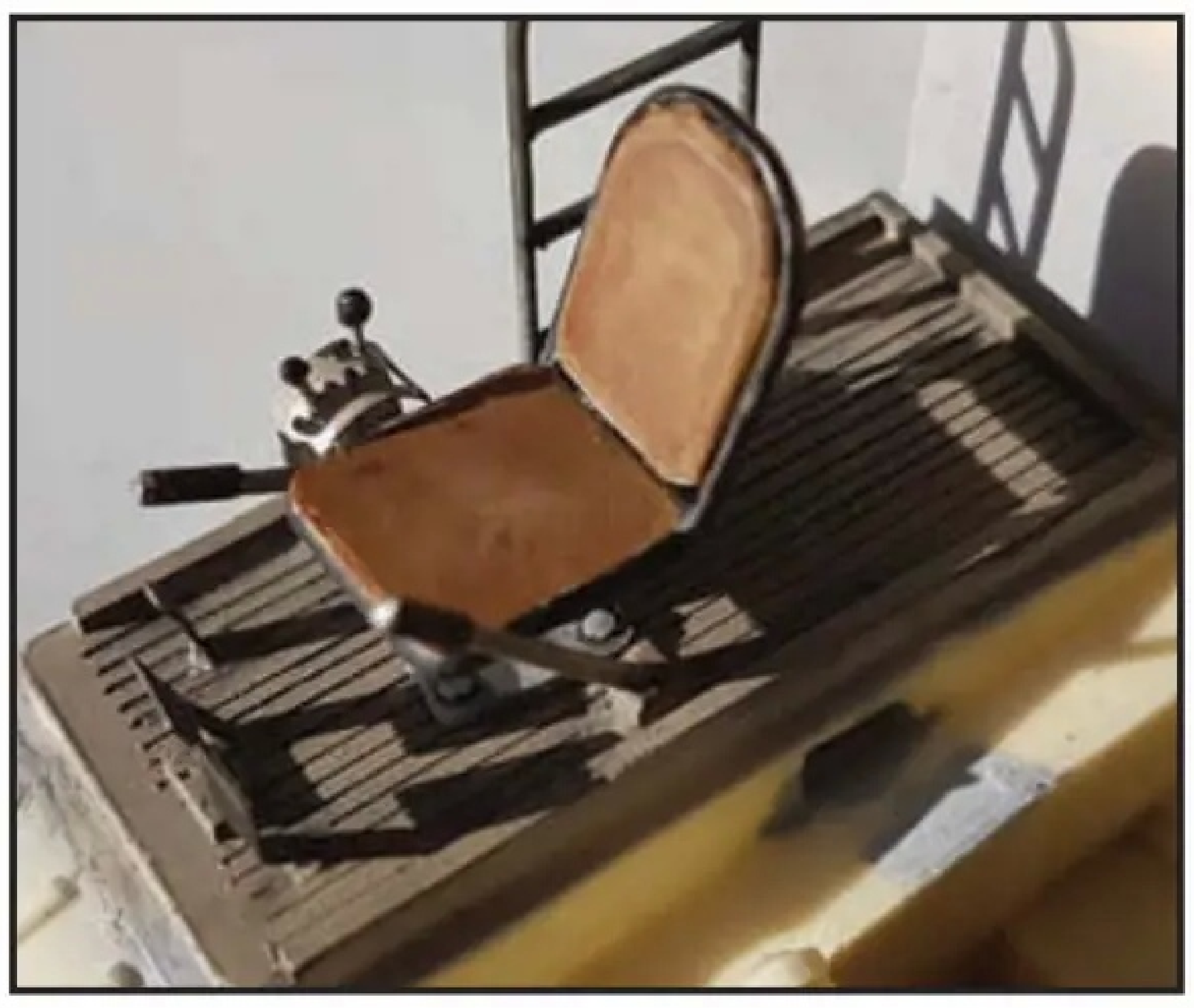
Each axle shaft was shortened to fit into the road wheels better.


I found the wheels far from reality concerning damaged or missing bolt detail so I improved general impression.

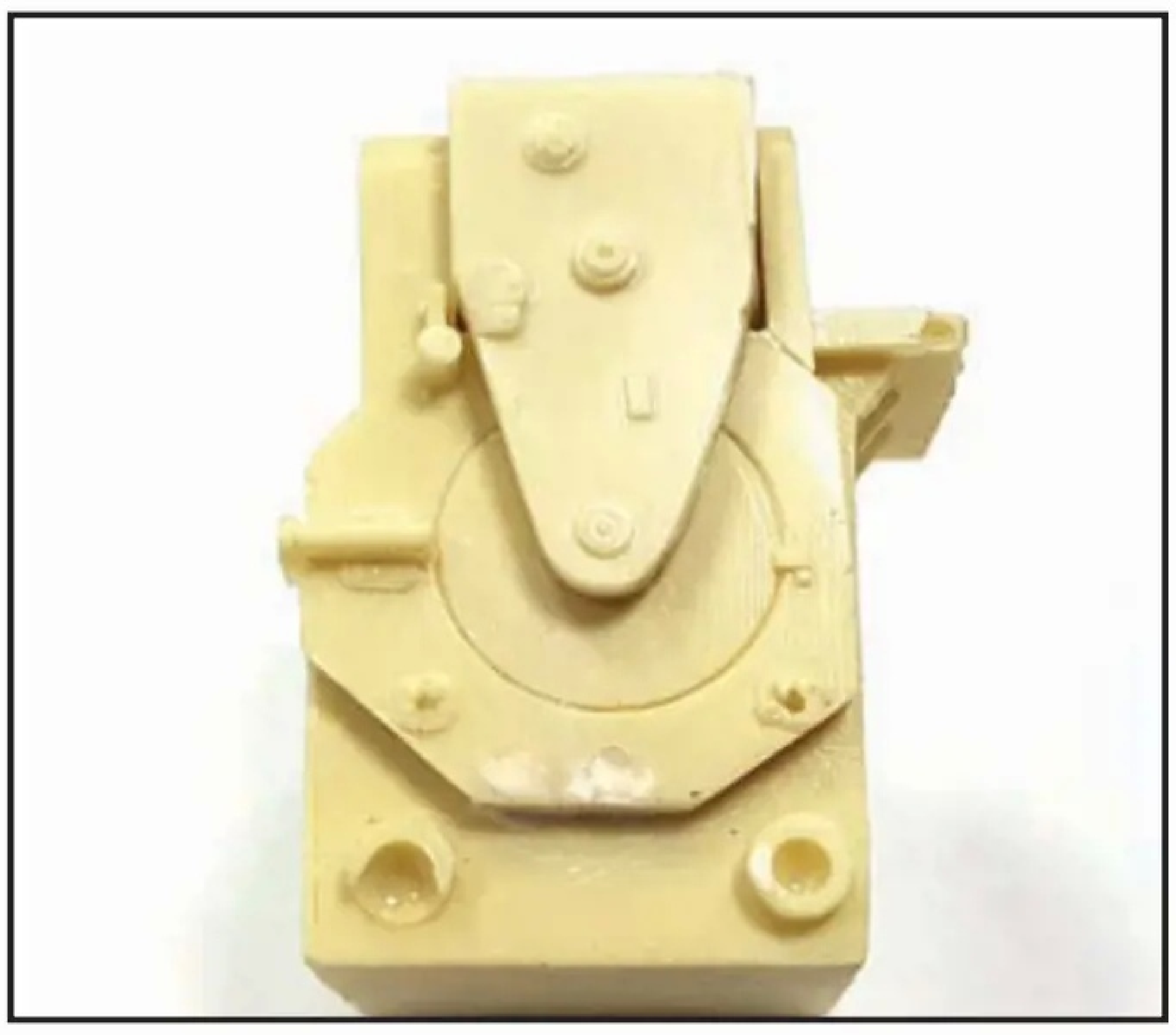

Buffer parts of the shock absorbers were improved adding a little resin cylinder with electrical wire and its jacket.


The interior of the operator cabin walls and ceiling were improved adding foil sections representing reinforced elements.

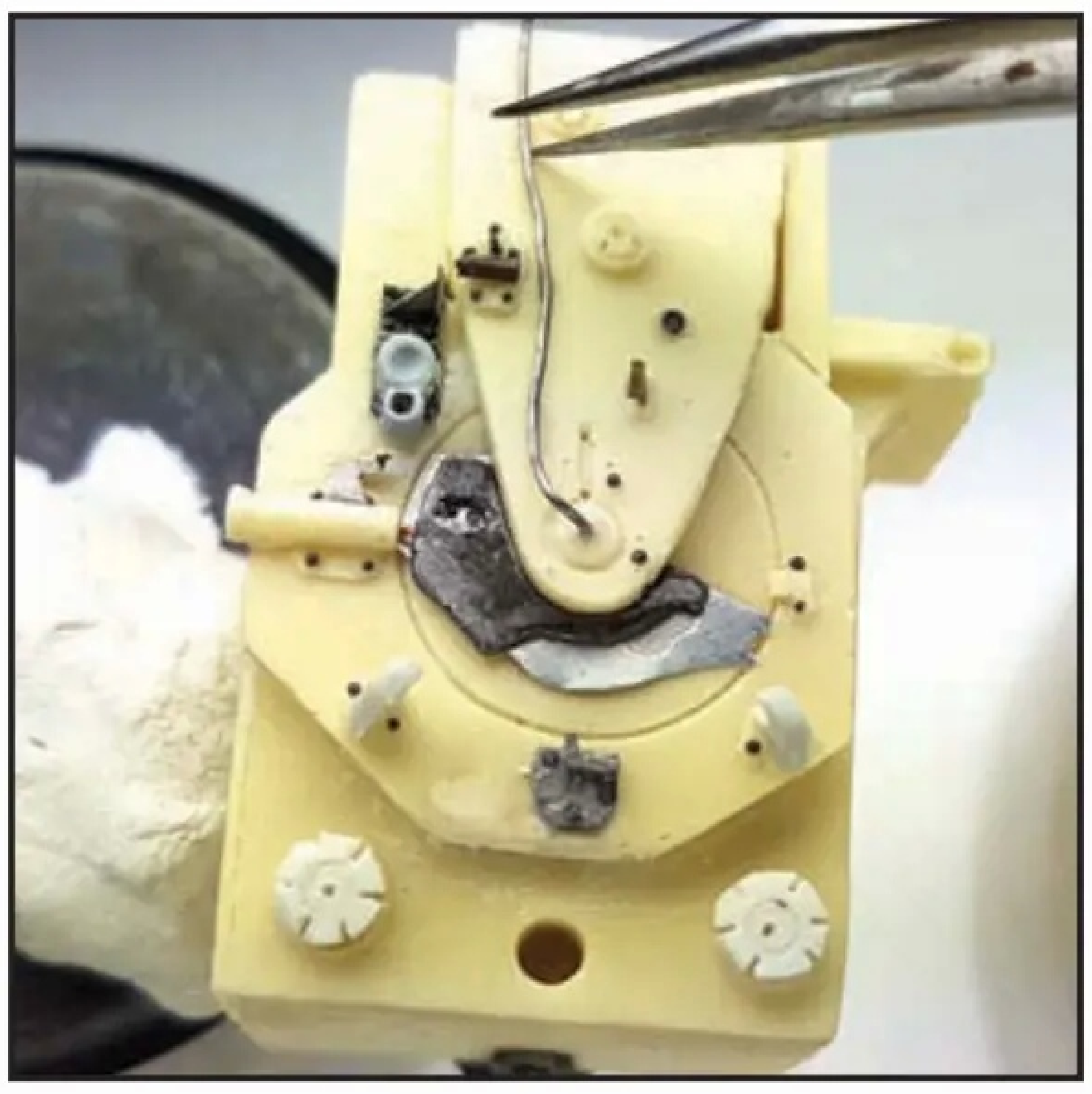

Scratchbuilt control panel added detail to the overall impression.



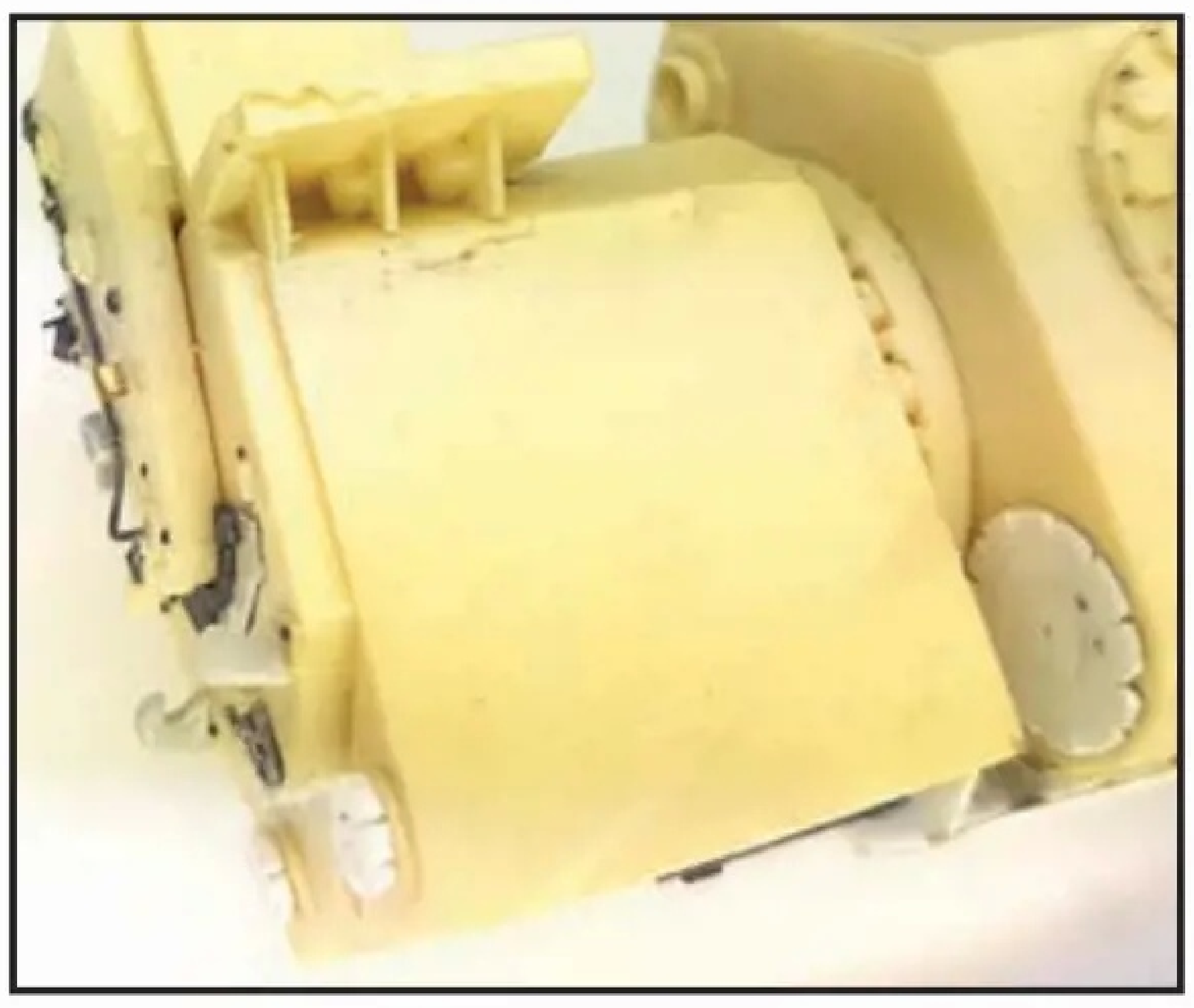
All components were painted before the cabin final assembly, access through the window would be either too complicated or impossible. I followed two existing photos showing a looted cabin inner space that allowed my creativity a certain degree of freedom.



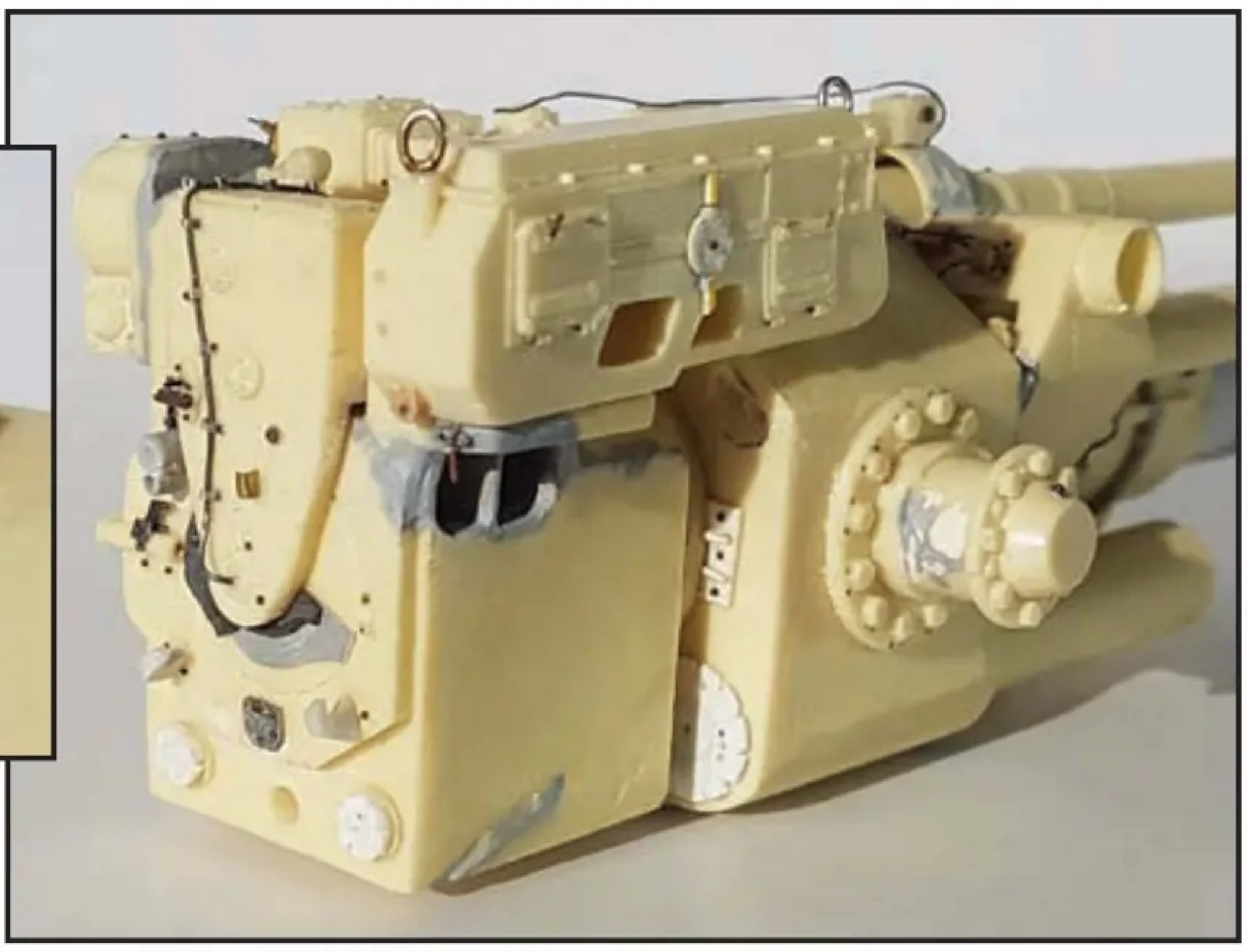
My kit's breechblock had casting damage and lacked overall detail, an important element which was worth some time and effort.

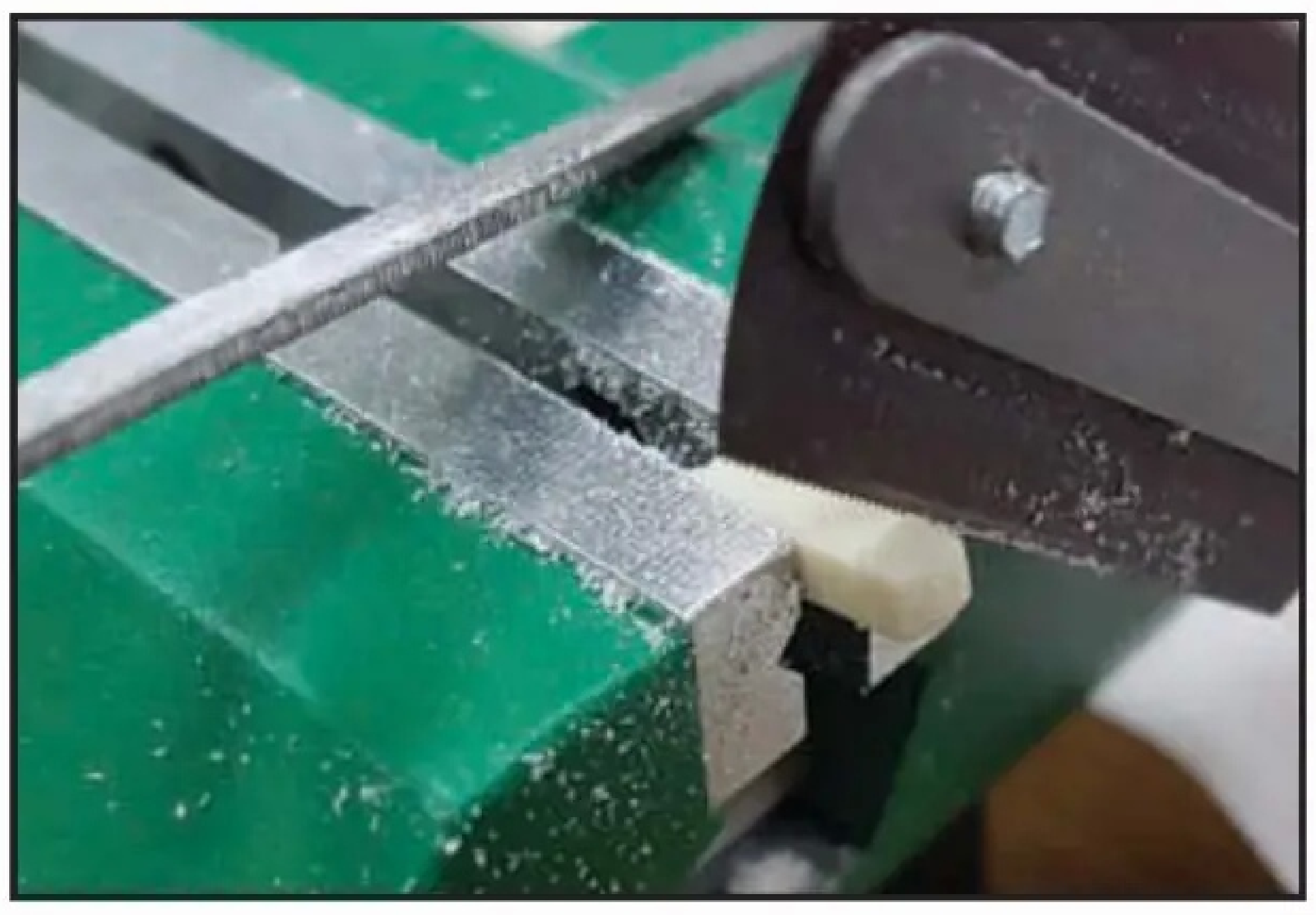


For detailing I used a lead wire, plastic and lead sheet. Some areas had to be trim with a milling cutter and the others repaired with Tamiya putty.

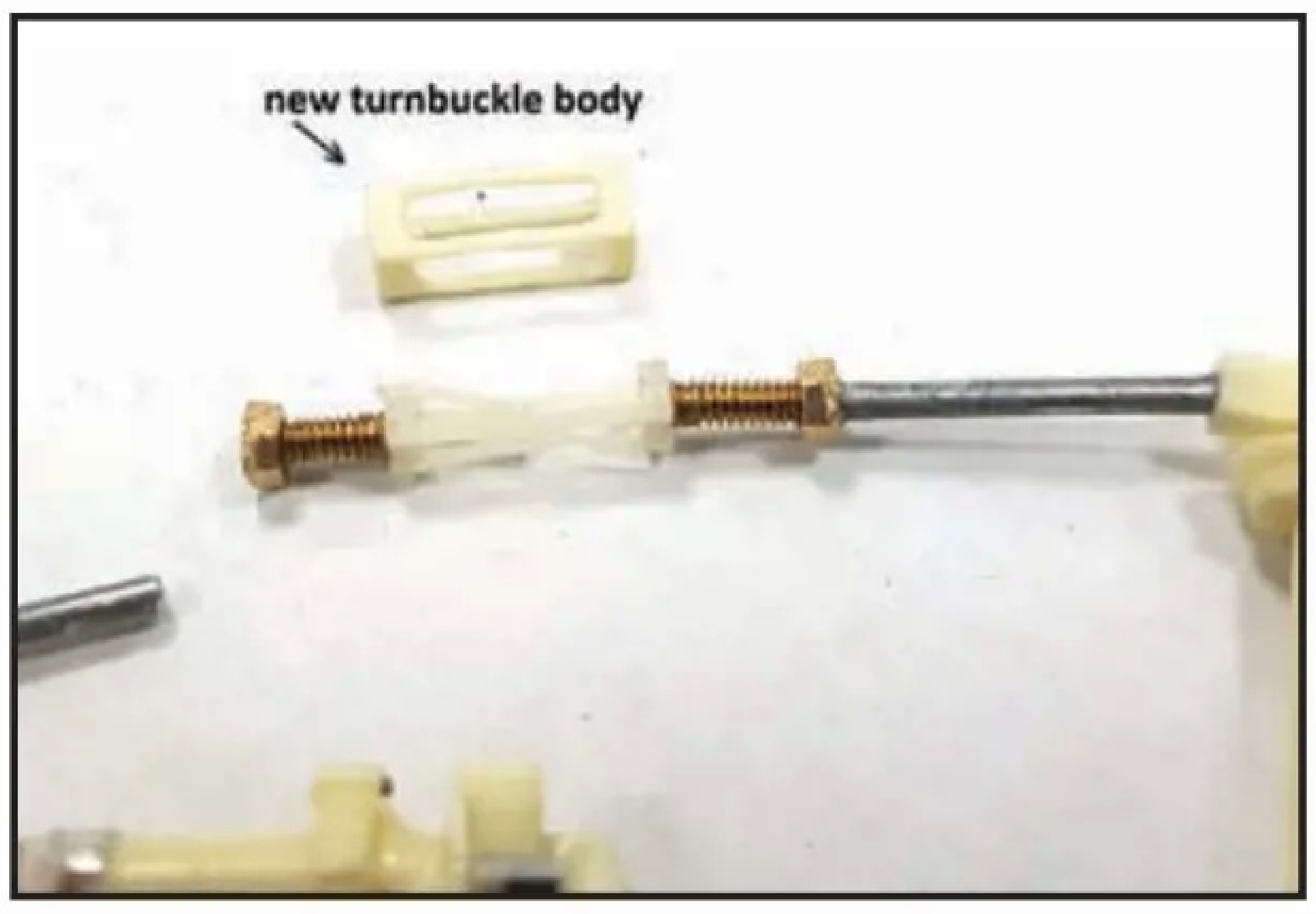


Breechblock side walls and the cradle were also far from perfect so a couple of interventions with Dremel tool were the need.

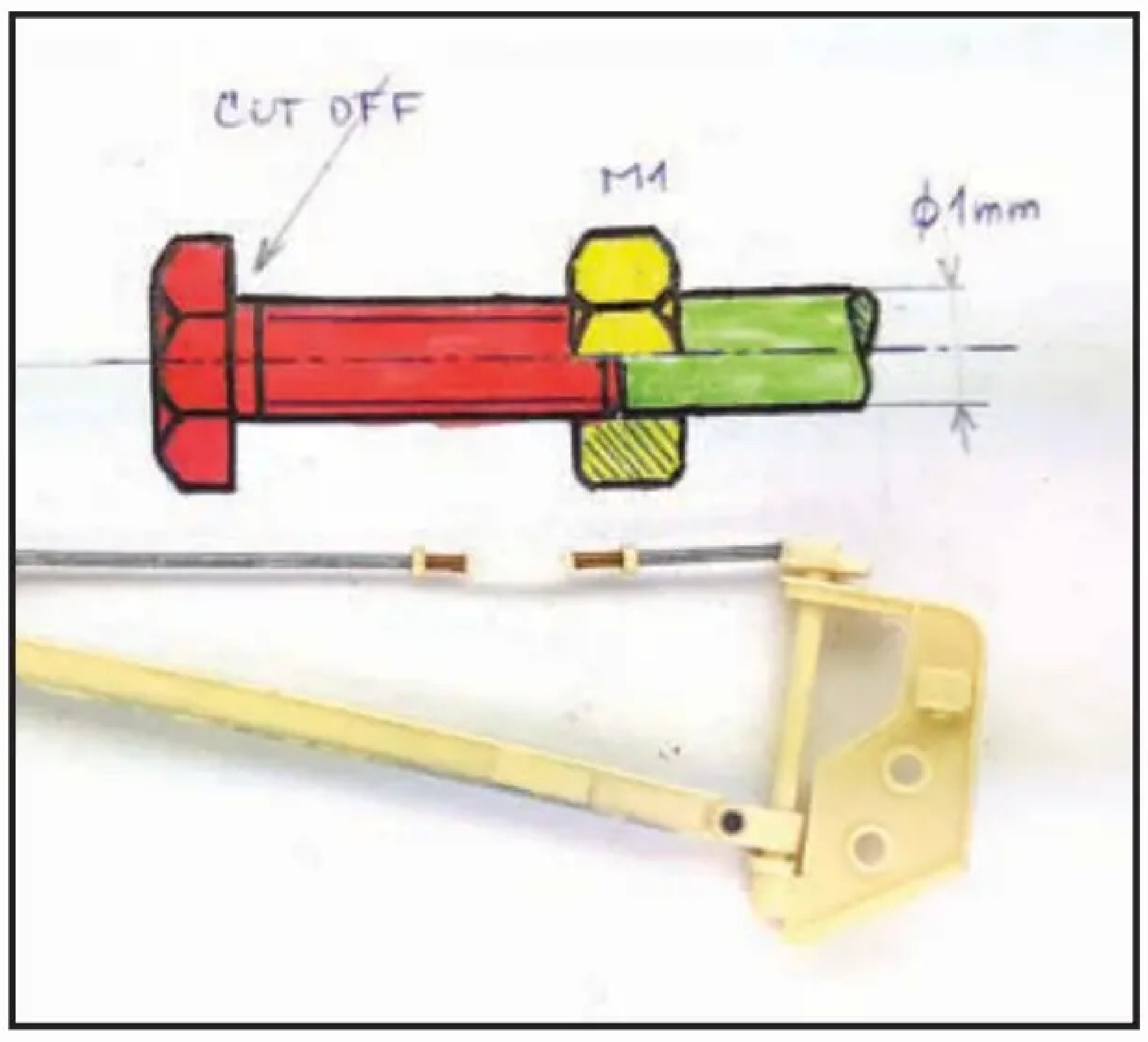




Completing the breachblock I turned my attention to the crane on the rear right side. A little piece of resin cuboid I modified into a new turnbuckle body. The original kit one was unuseable.

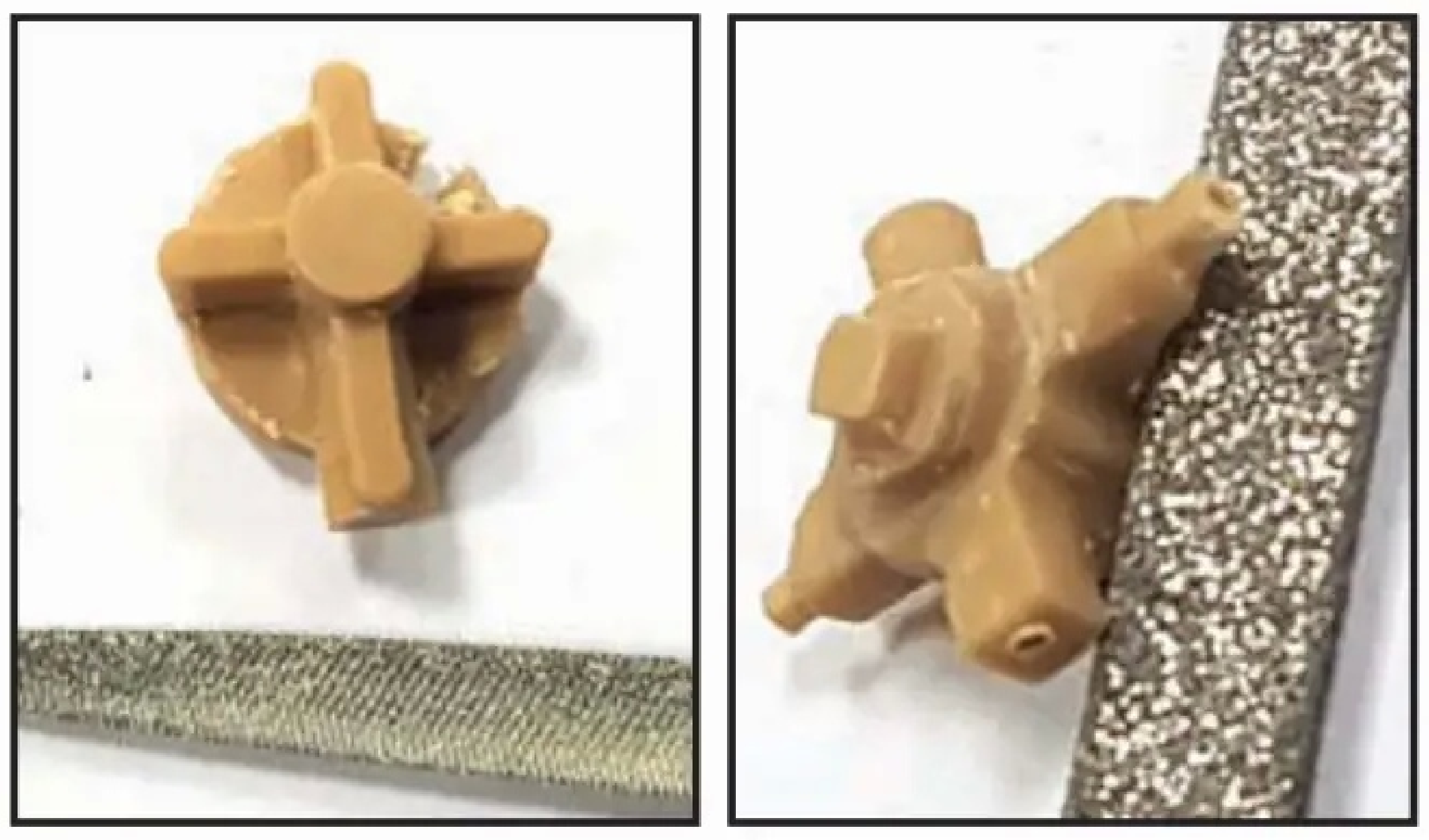


I added steel rods instead of resin rod with tiny adapted screws of 1mm diameter to depict the mechanism in more detail.

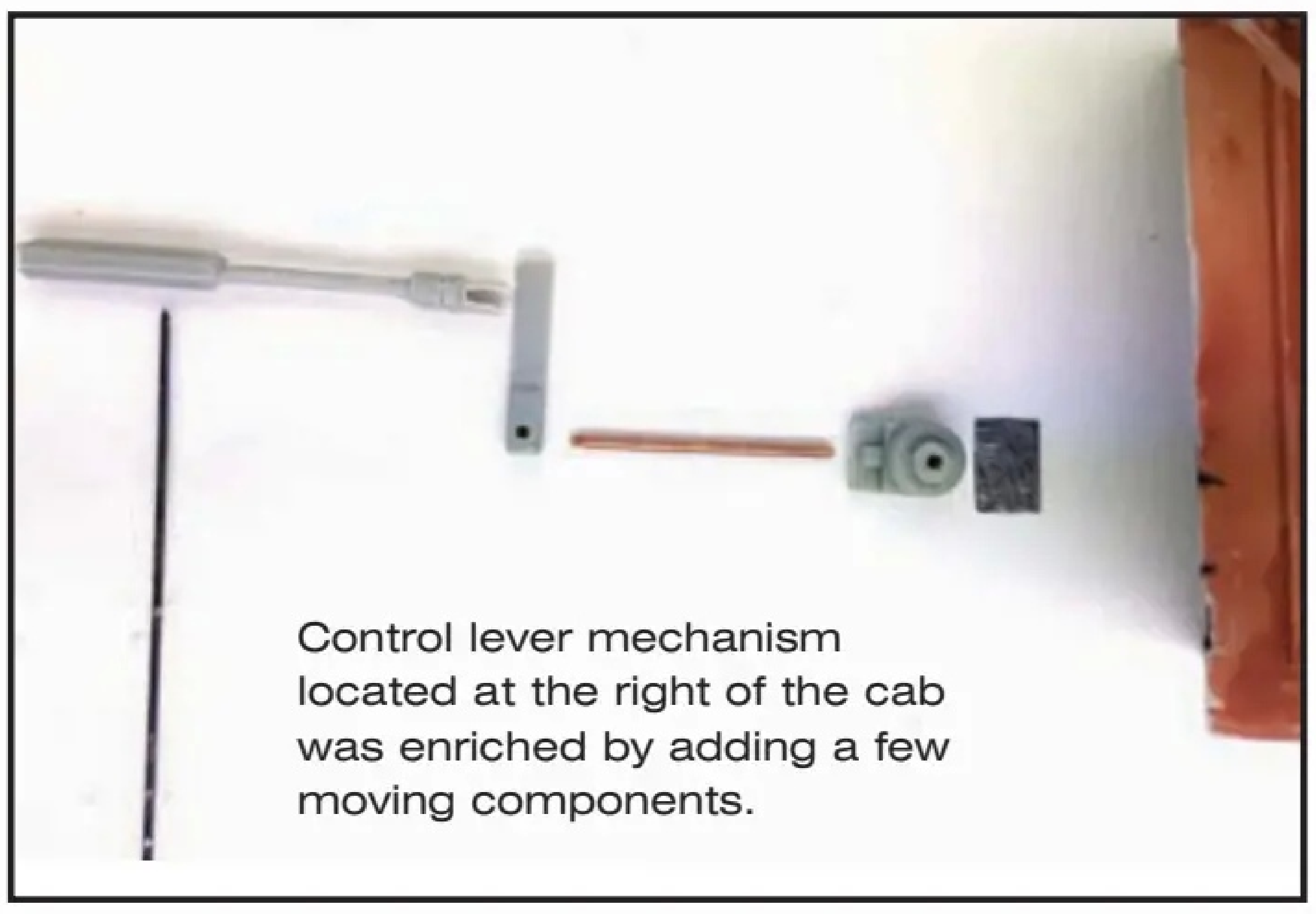


For plumbing I used lead wire as it's easy to manipulate. The piping clamps are made from thin aluminium sheet bent around a drill bit.

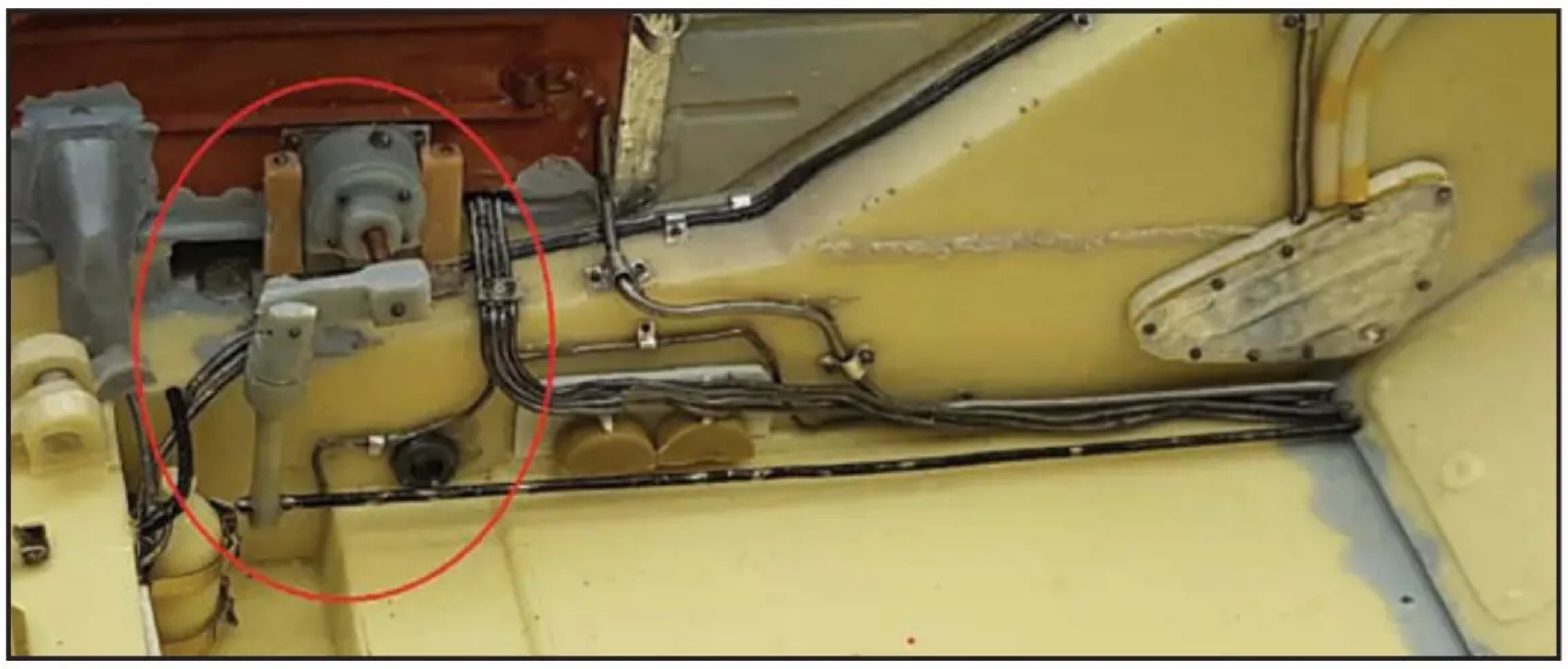
Four seats situated around the hull left and right superstructure seemed to be too simple compared with a reference image so drilling and lead wire improved their look to my satisfaction.

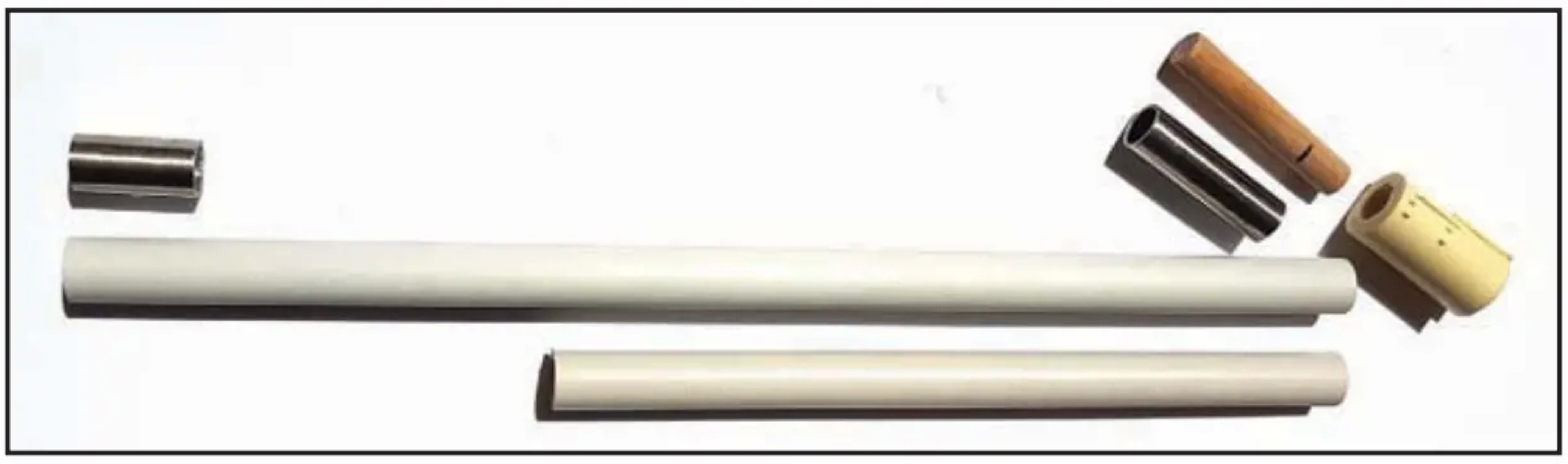


The hub and other associated components for pipe junctions are made from one of my spare plastic kit sprues. No extra tools just a fine file enough for that task. Folded aluminium and spare photoetch sharpen the detail of other components.

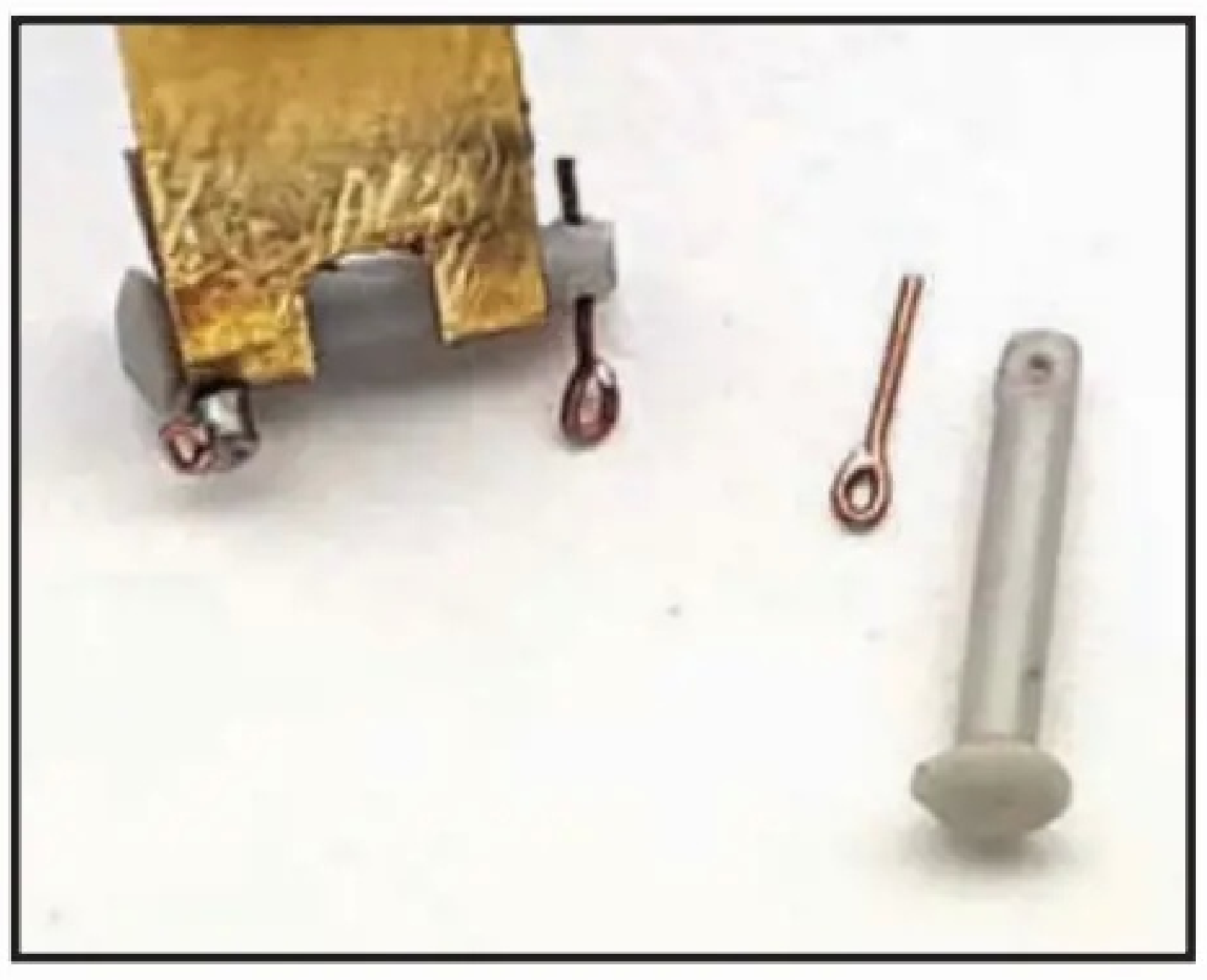


Control lever mechanism located at the right of the cab was enriched by adding a few moving components.

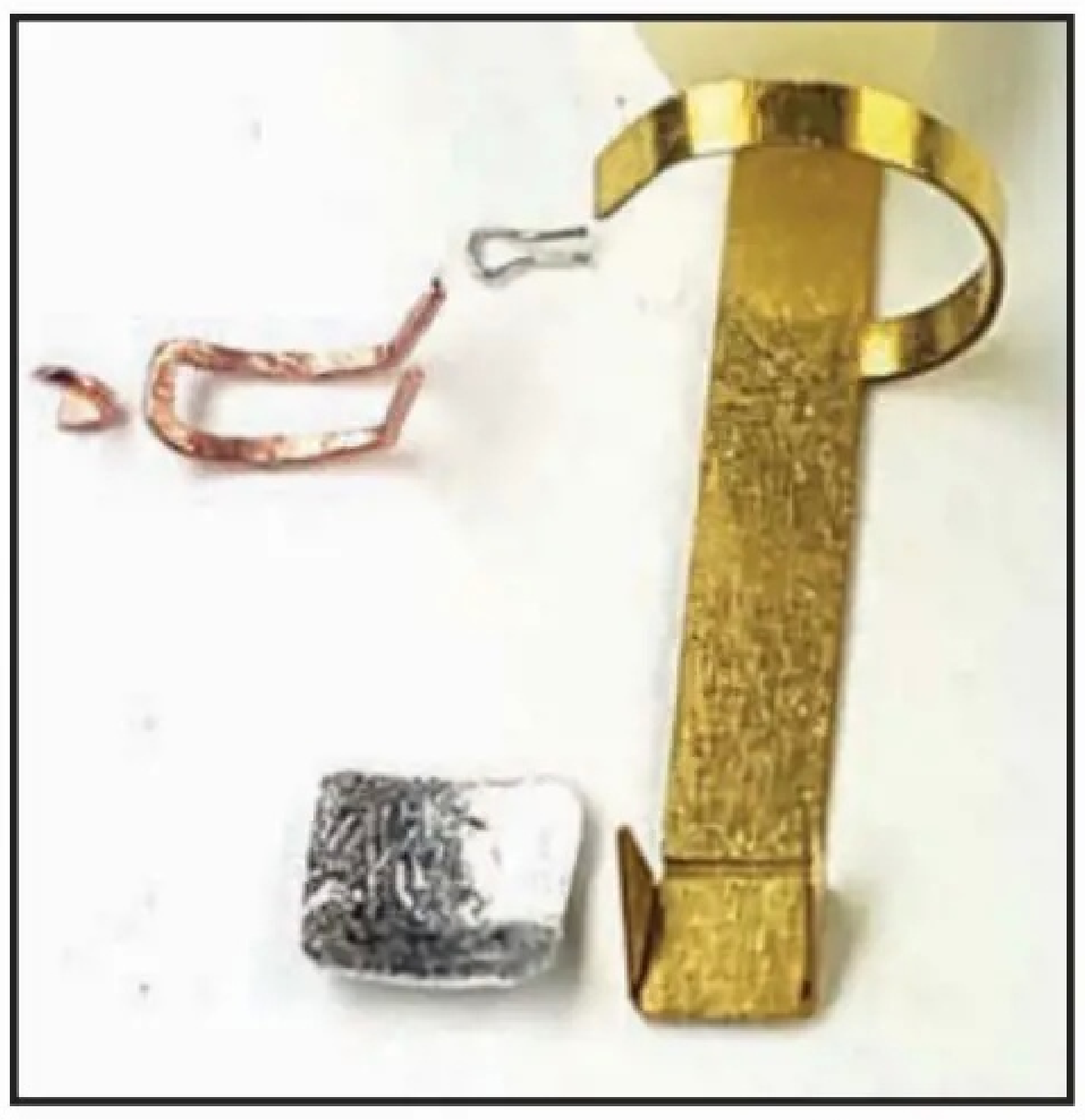




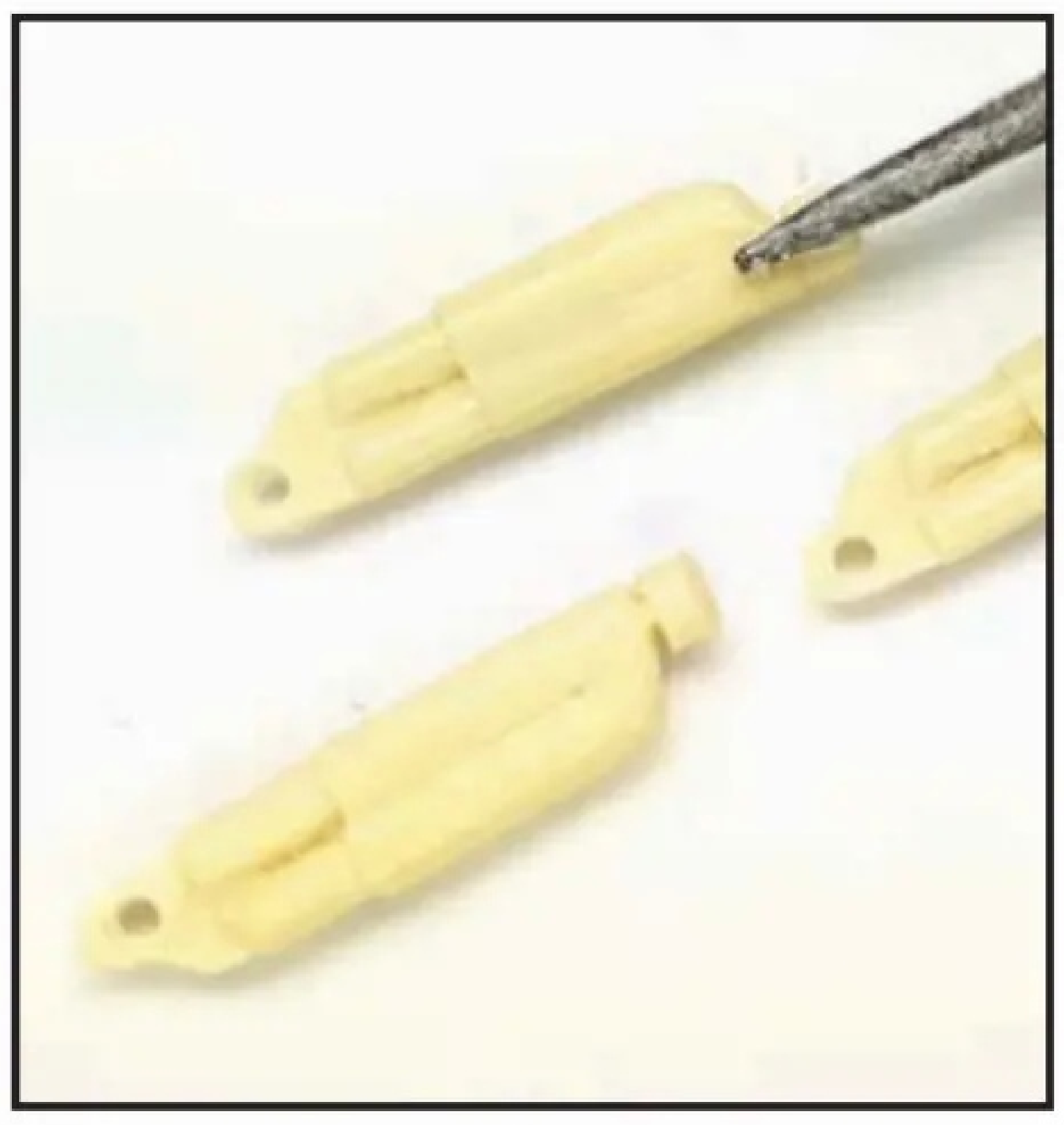
In the box I found a fundamentally shorter tube intended for a barrel so had to make a new one. Undoubtedly the producer's biggest mistake but fortunately I found a quick solution. I bought quite cheap electrician's plastic pipe of 16mm diameter and a proper thickness of the barrel I depicted with a short piece of inserted steel pipe. Inner of the steel pipe was turned out to 11.6mm which corresponds with the calibre 406mm in 1:35 scale. The same steel pipe section with a wooden dowel (like a mandrel) I used to fix the barrel into the resin breech block.



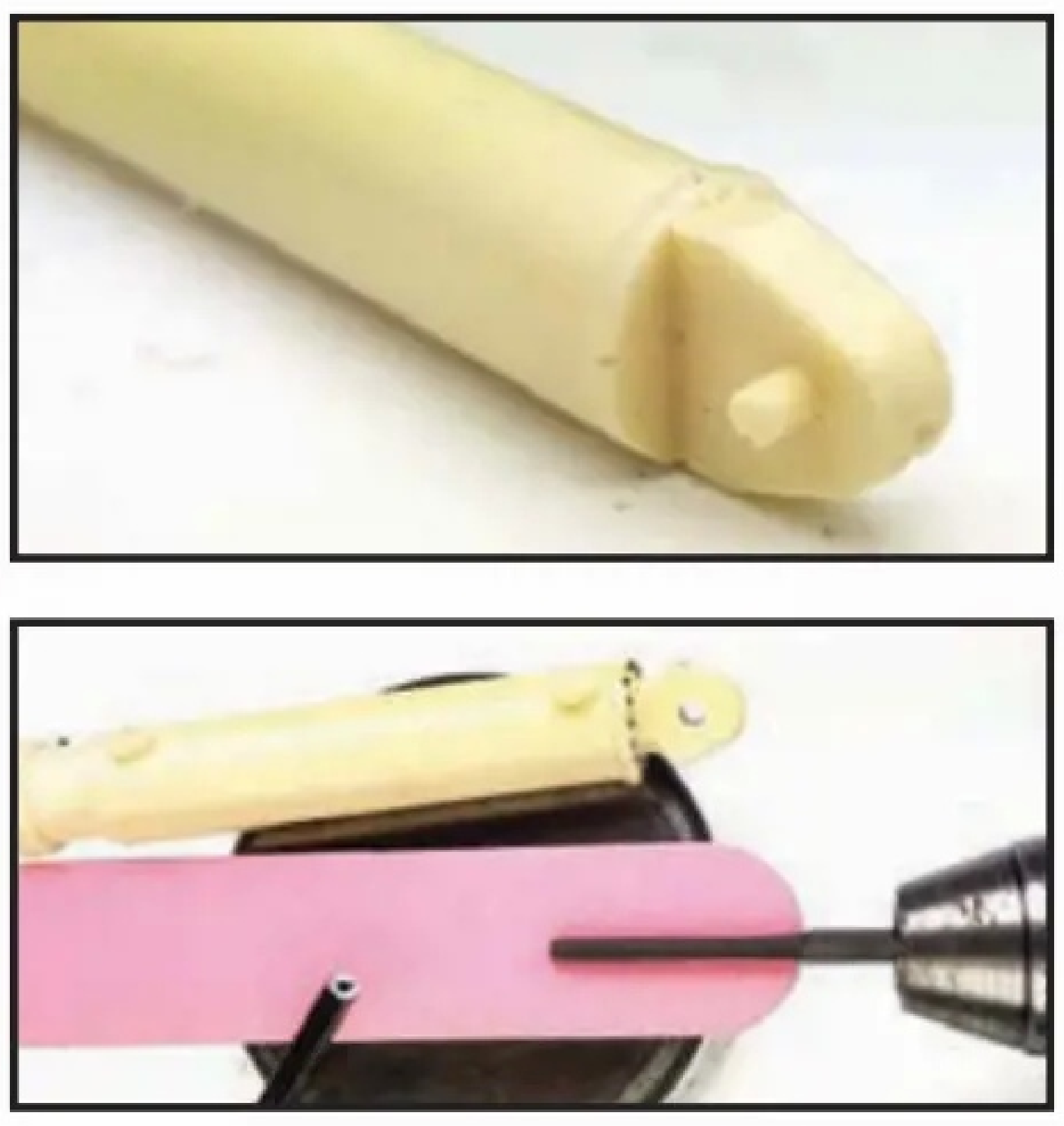
The travel lock fixing device consists of a tightening metal strap secured with 2 bolts. A heated screwdriver held close at one of the plastic rod ends created half-round bolt head. Then I modified thin wire as the cotter pins and glued a little eye for securing chain.



Support for a fire extinguisher I improved to the correct shape adding a scratchbuilt wall hanger bracket.

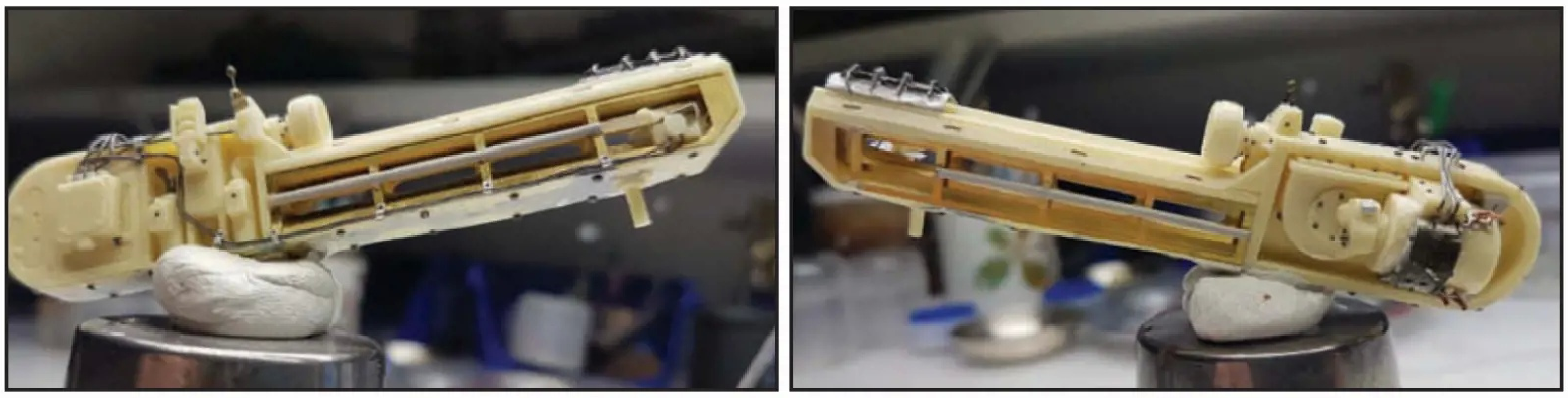


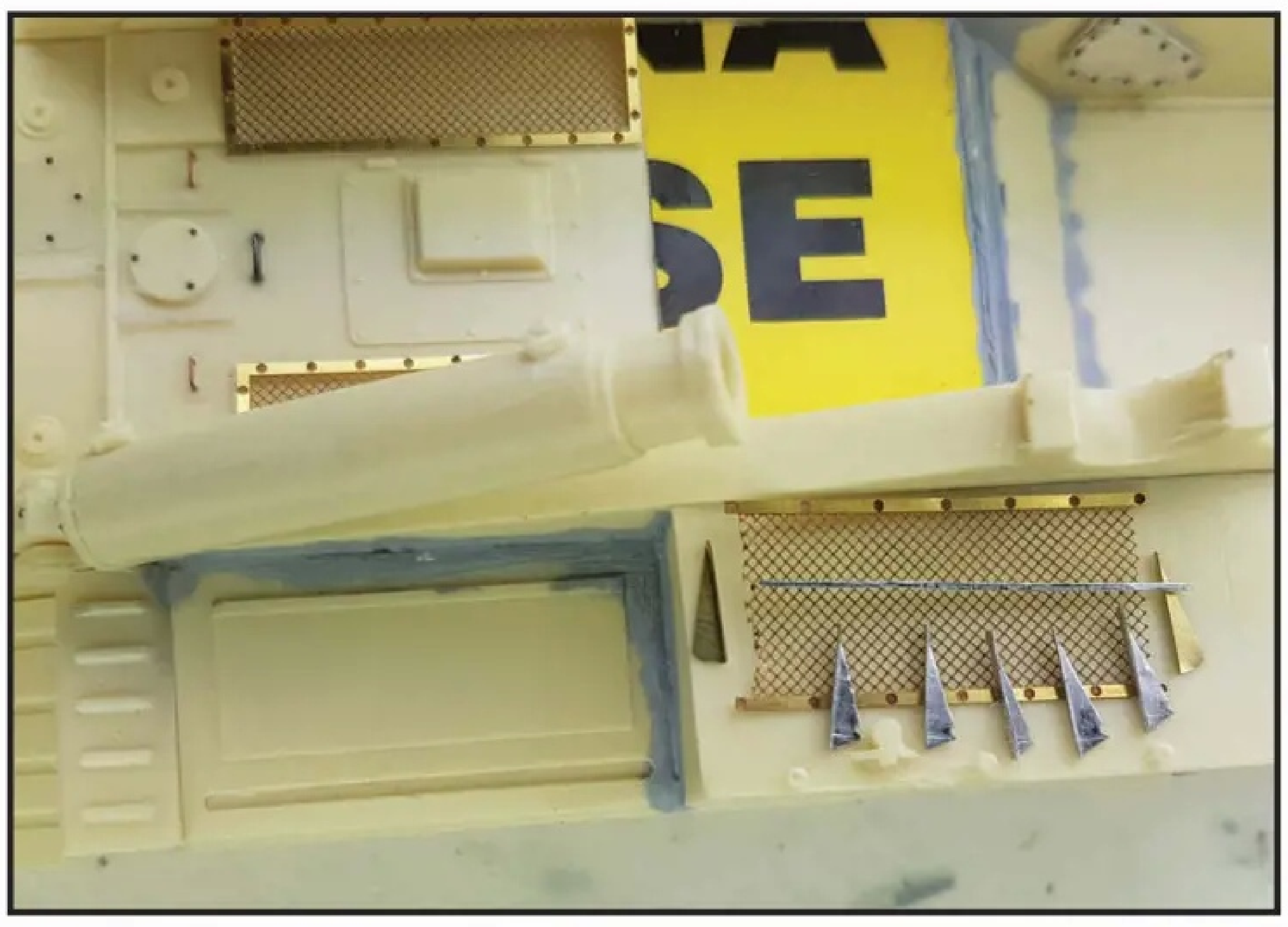
Flat shoulders of the shock absorbers were shaped to replicate my reference images



Equilibrators adjustment required a new hollow pin connector, a missing groove and adding the missing screw heads. Hollow connectors and the groove I did by means of a hand drilling machine.

Very simplified loading mechanism was improved by adding a lot of new elements for which the lead wire proved to be quite appropriate.

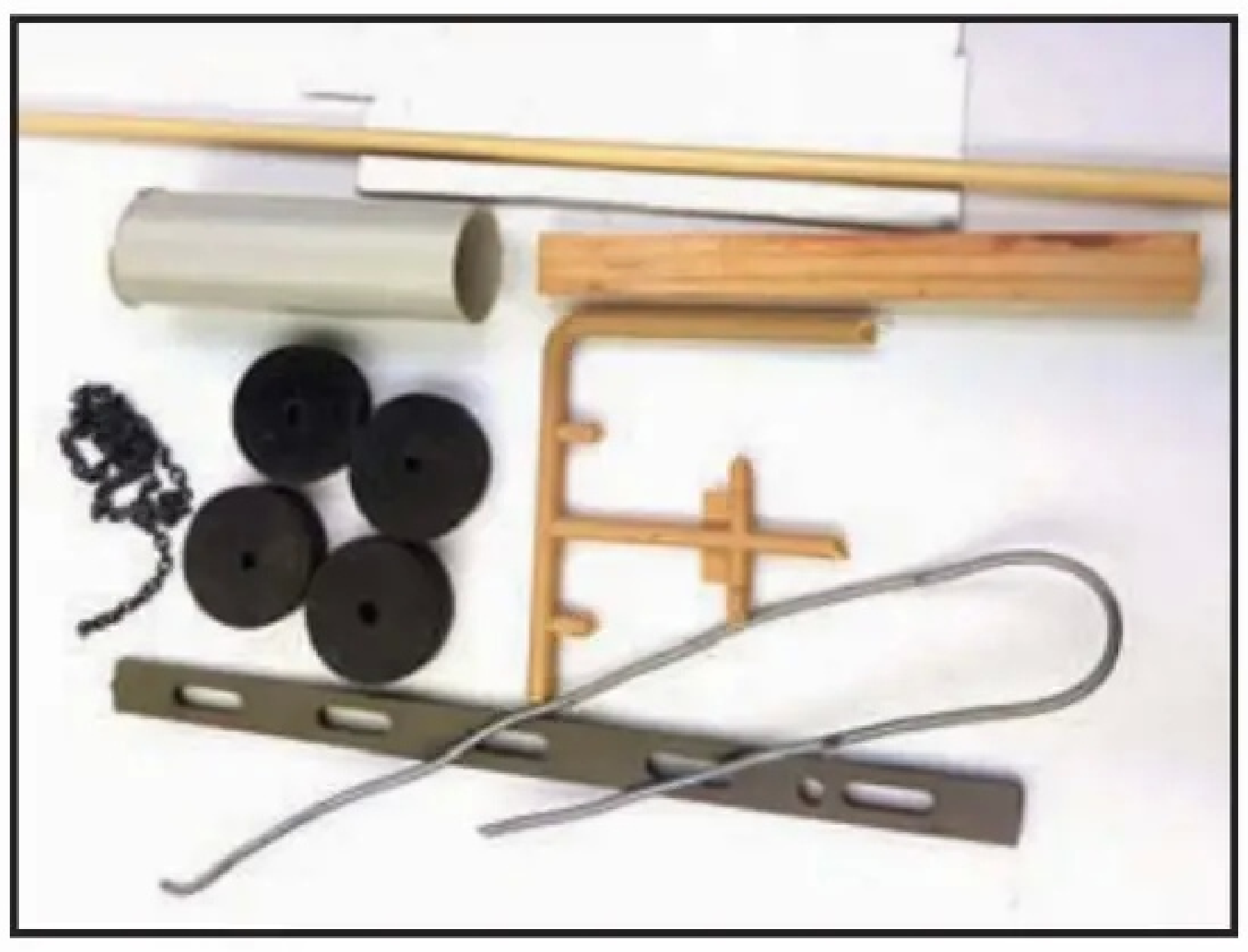




Engine hood plates were improved with a PE mesh, grab handles and missing screws.

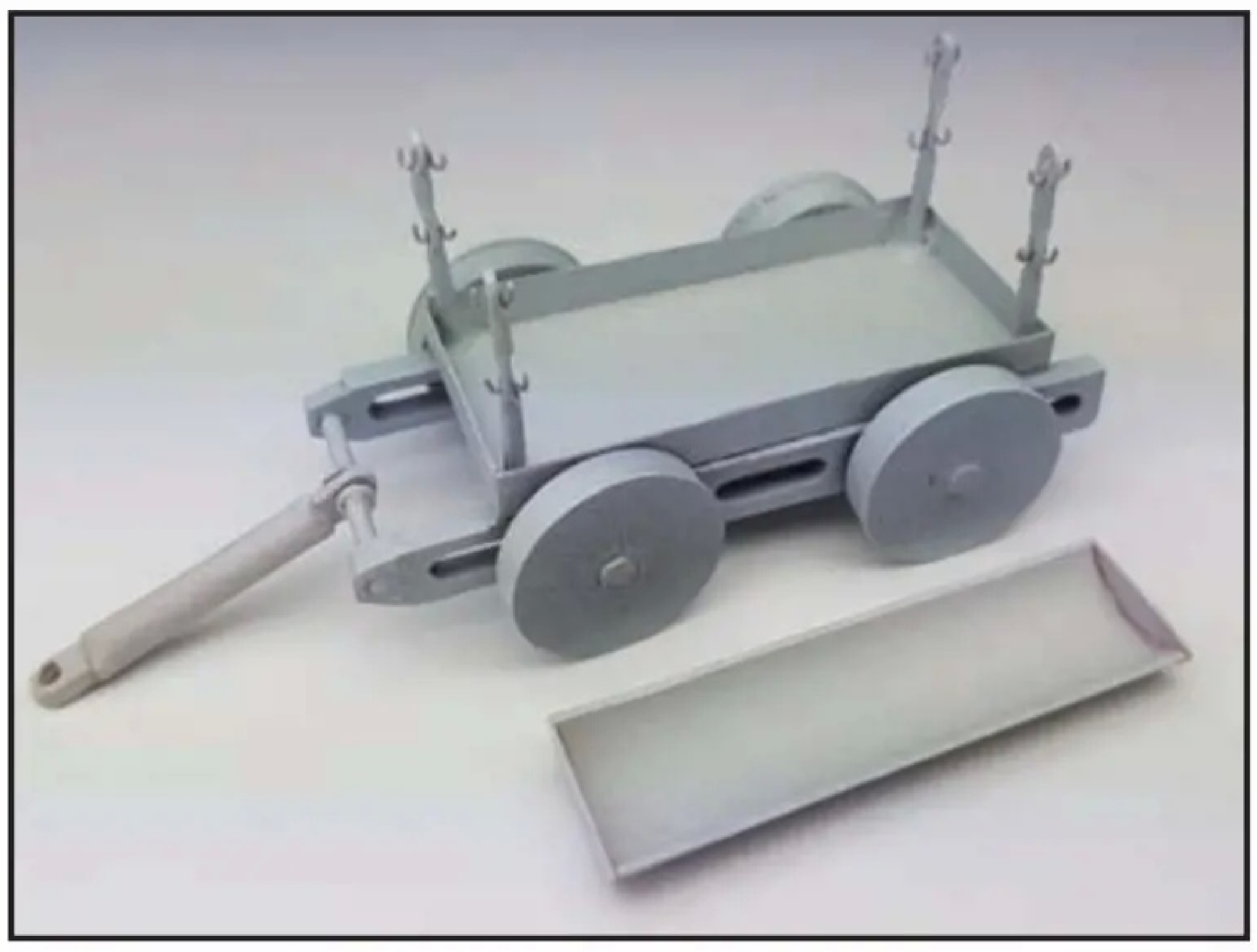
INSPIRATION
Schmuckstein-Sticker

Tail light's bodies were altered by hollowing with my Dremel tool. A little black point in the cavity centre illustrates the bulb and a glass sequin represents glazing.



I designed and built a carriage for 406mm projectile transport to add interest to the display. The first thing to do when starting any scratch building project is to gather as much as info as possible, but in the case of the grenade carriage I had to admit to drawing a blank.

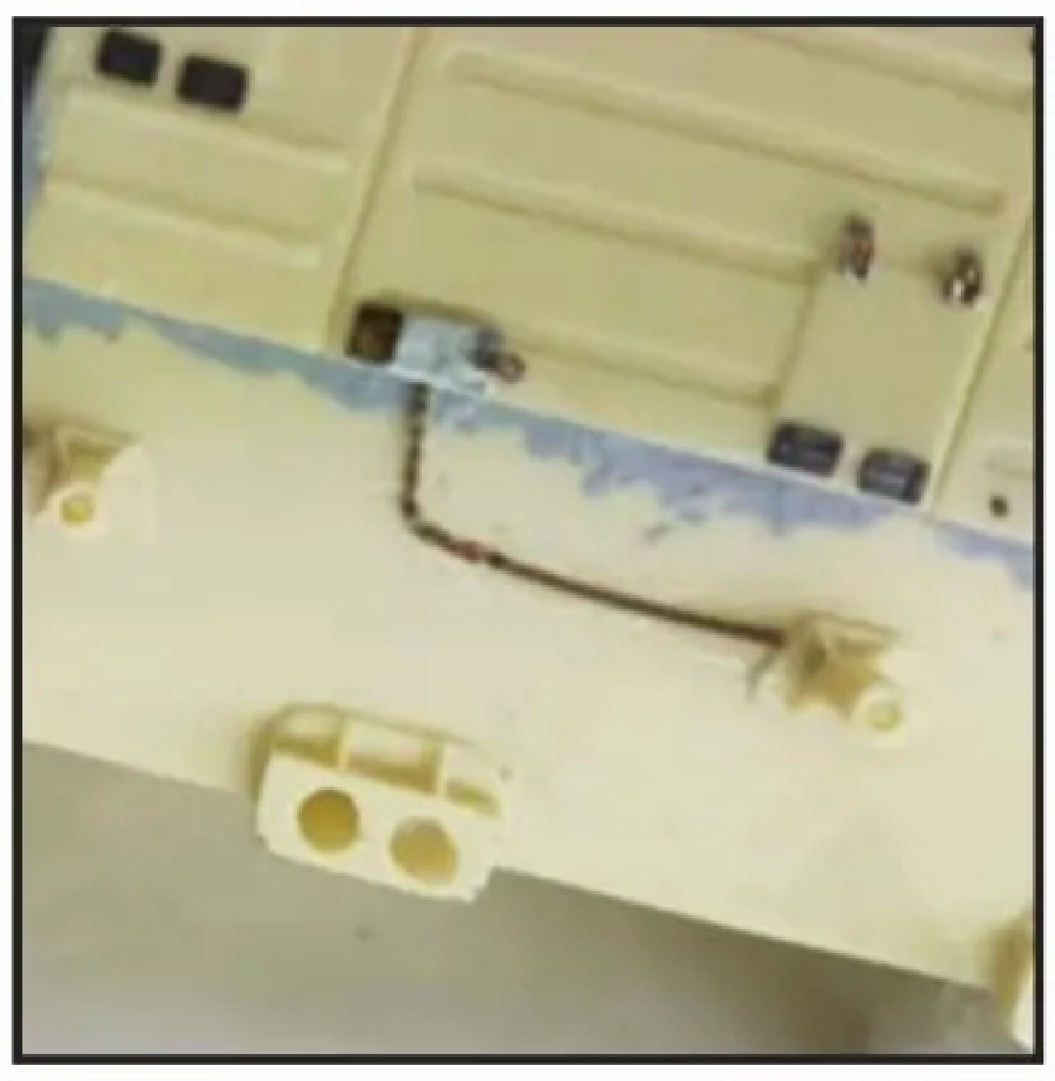
No information seems to exist so the construction is based on common sense and referring to other similar carts of heavy munitions. The spares box and several household items gave me enough parts to play with.



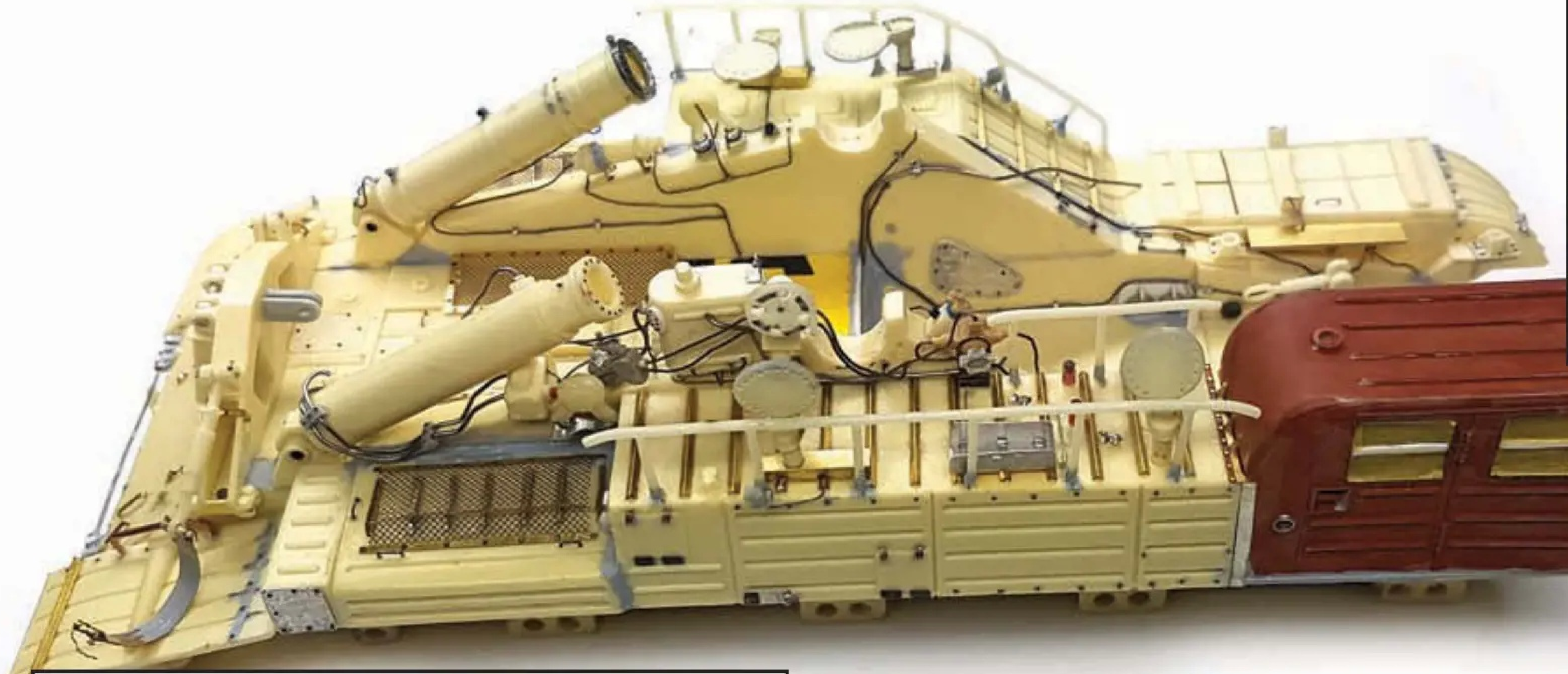
The carriage done, but what to put on it ? Of course a projectile with lifting clamp. I found only one photo depicting real 406mm calibre projectile but alas no photo of the lifting clamp. Hypothetical design again then, a lifting clamp was made up from surplus parts and the 406mm grenade turned from a wooden dowel held in a drill chuck.

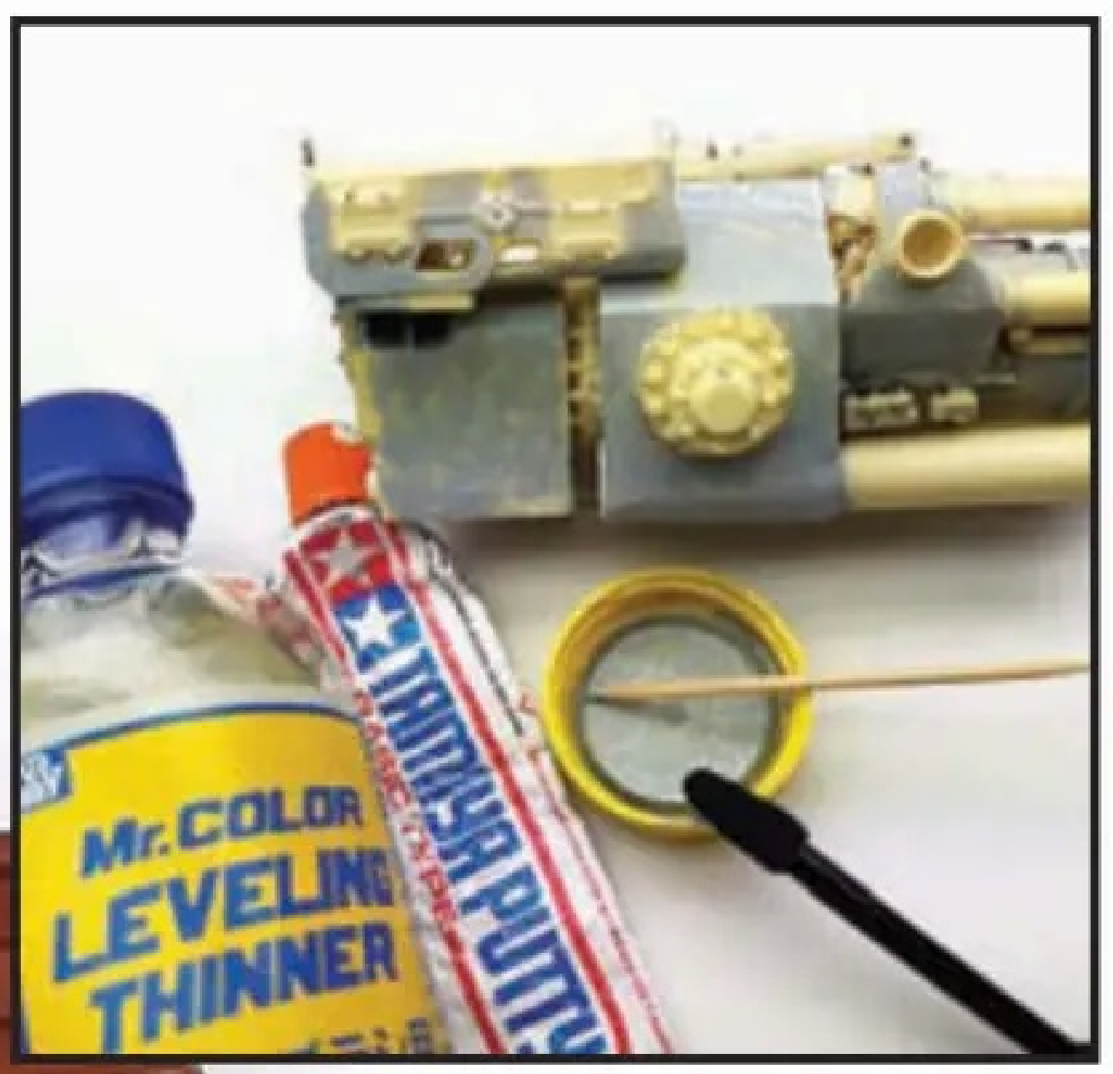
The finished projectile and cradle have a convincing look.

Friul tracks are impressive but for 100% accuracy I had to drill two holes in each

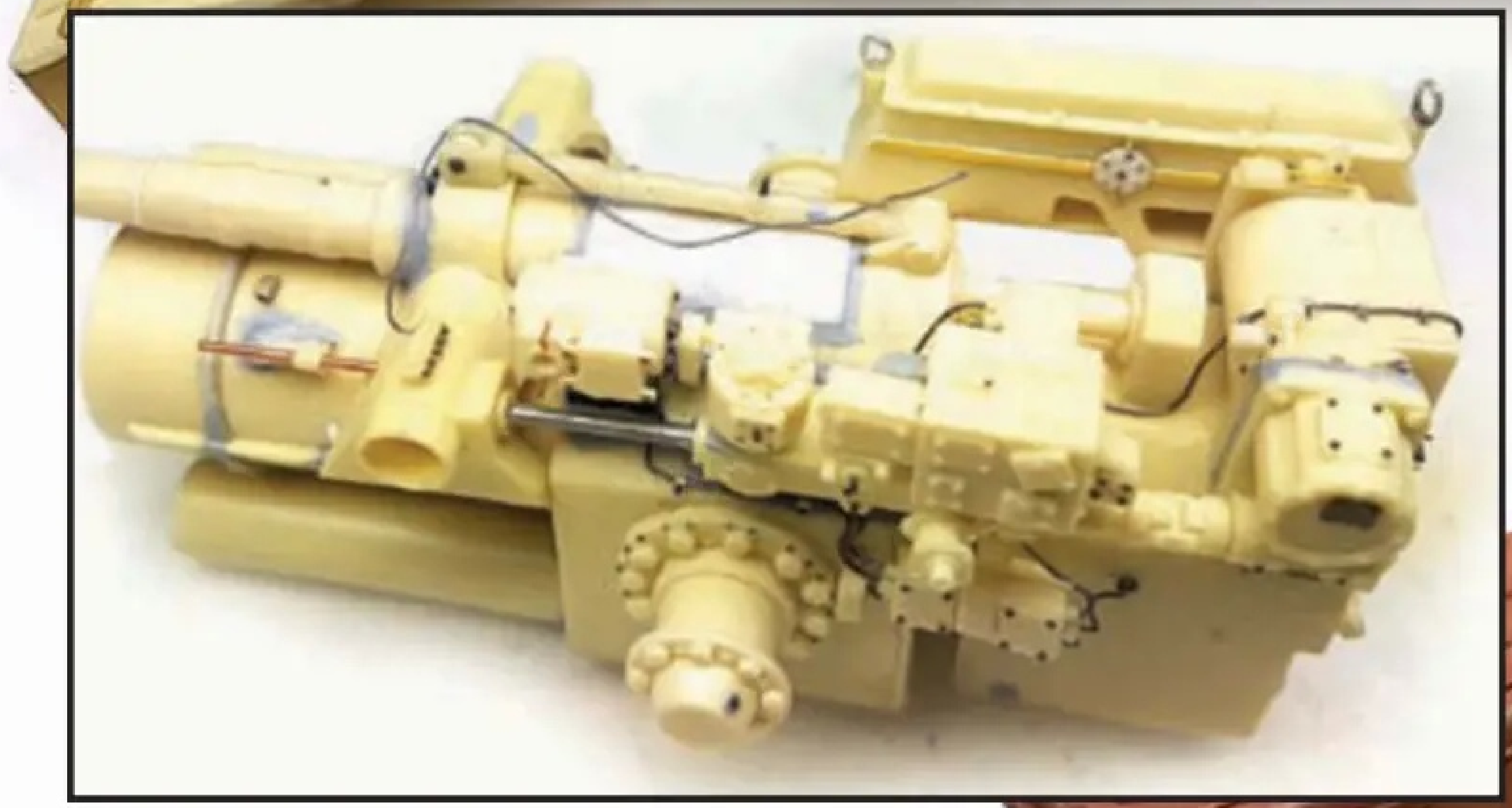


Weld beads behind the road wheels and locally on the hull were created by a thin sprue string glued at the surface and afterwards melted by electrical soldering gun.

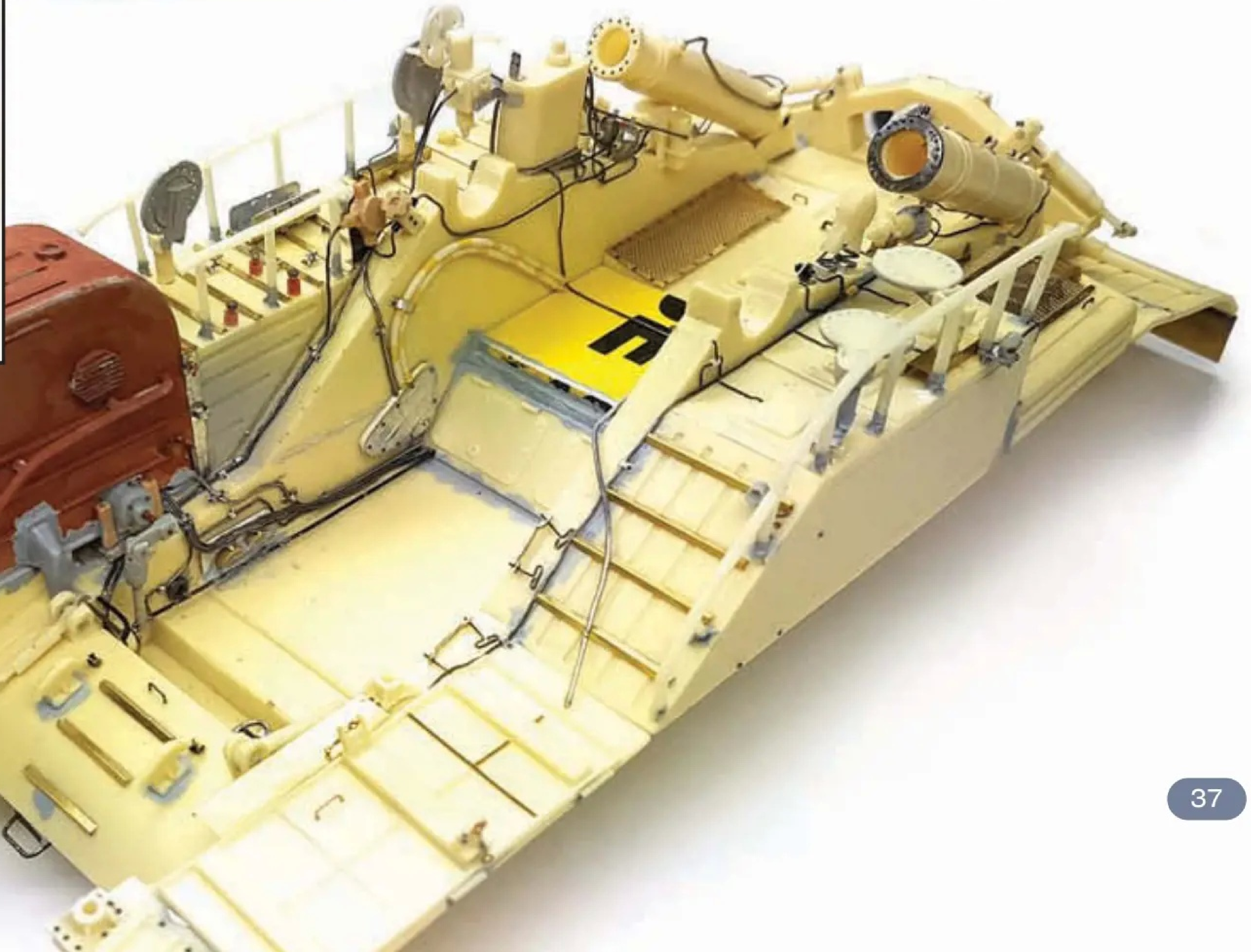


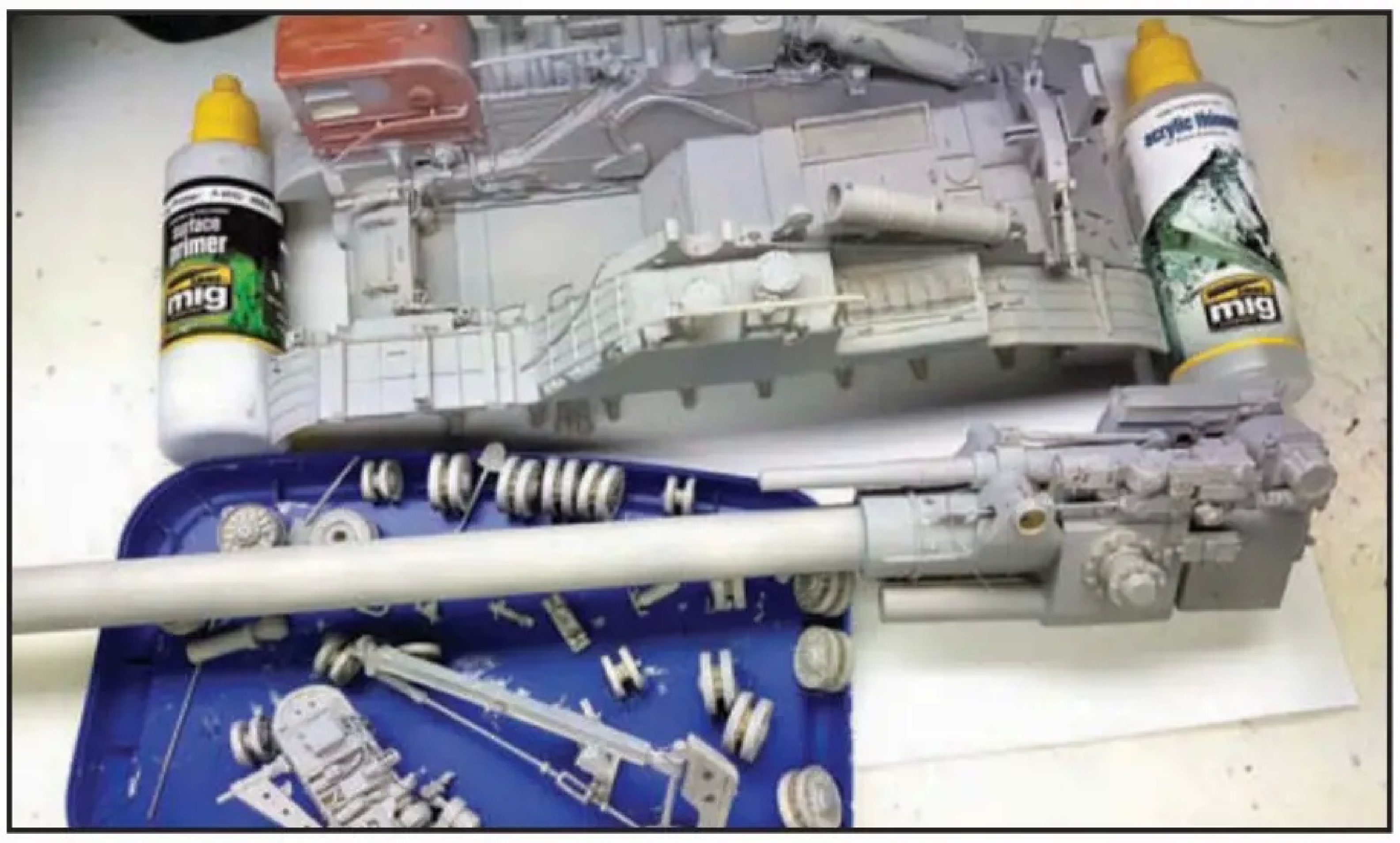


The cast steel effect was made by tappping Tamiya putty over the surface. Once dry this was slightly sanded to unify overall impression.



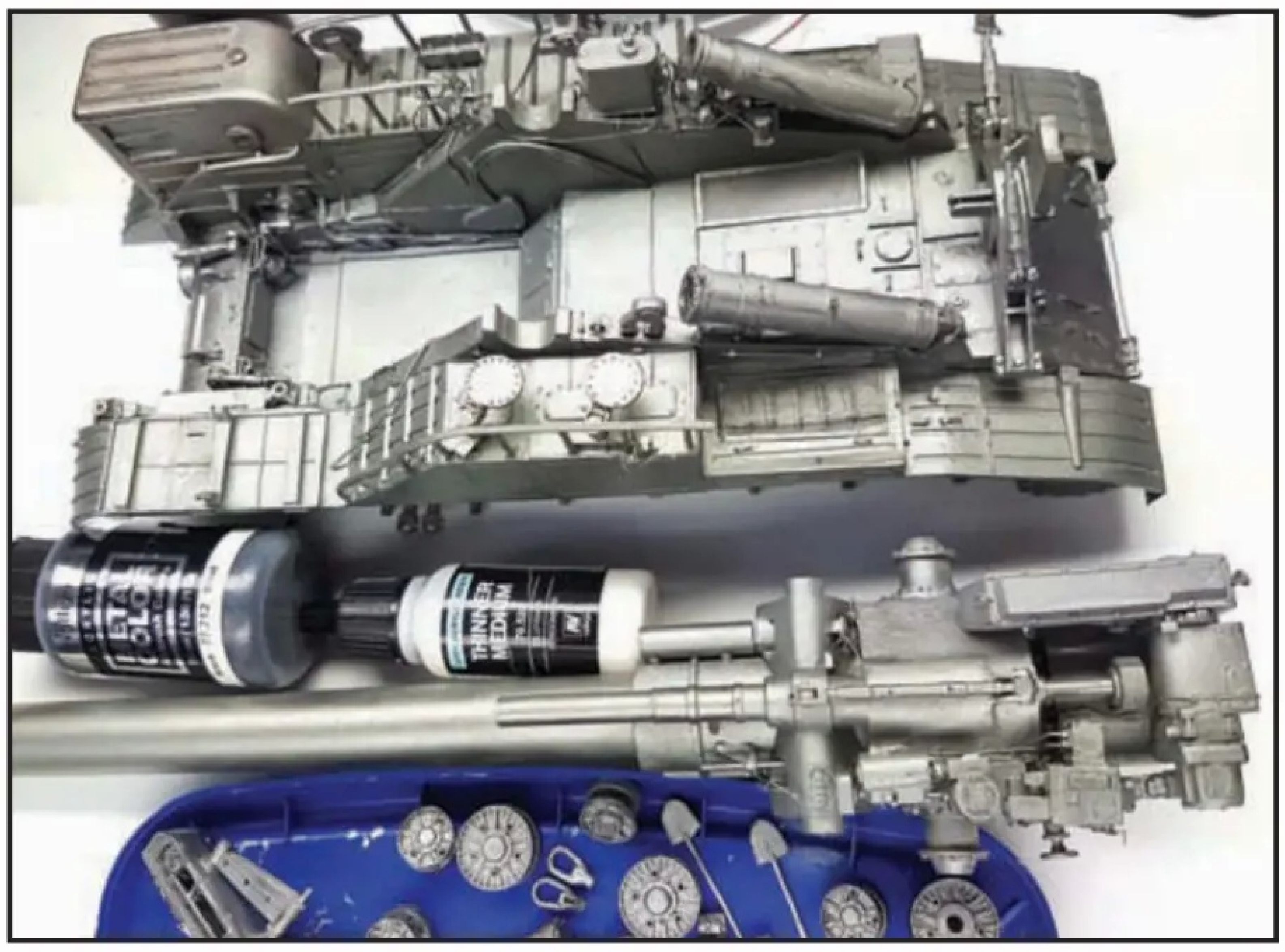
When you analyse the Panzershop kit carefully we can see many details which are absent like the hydraulic and electrical plumbing for instance. The piping and cable system was added using mostly lead wire of different grades.



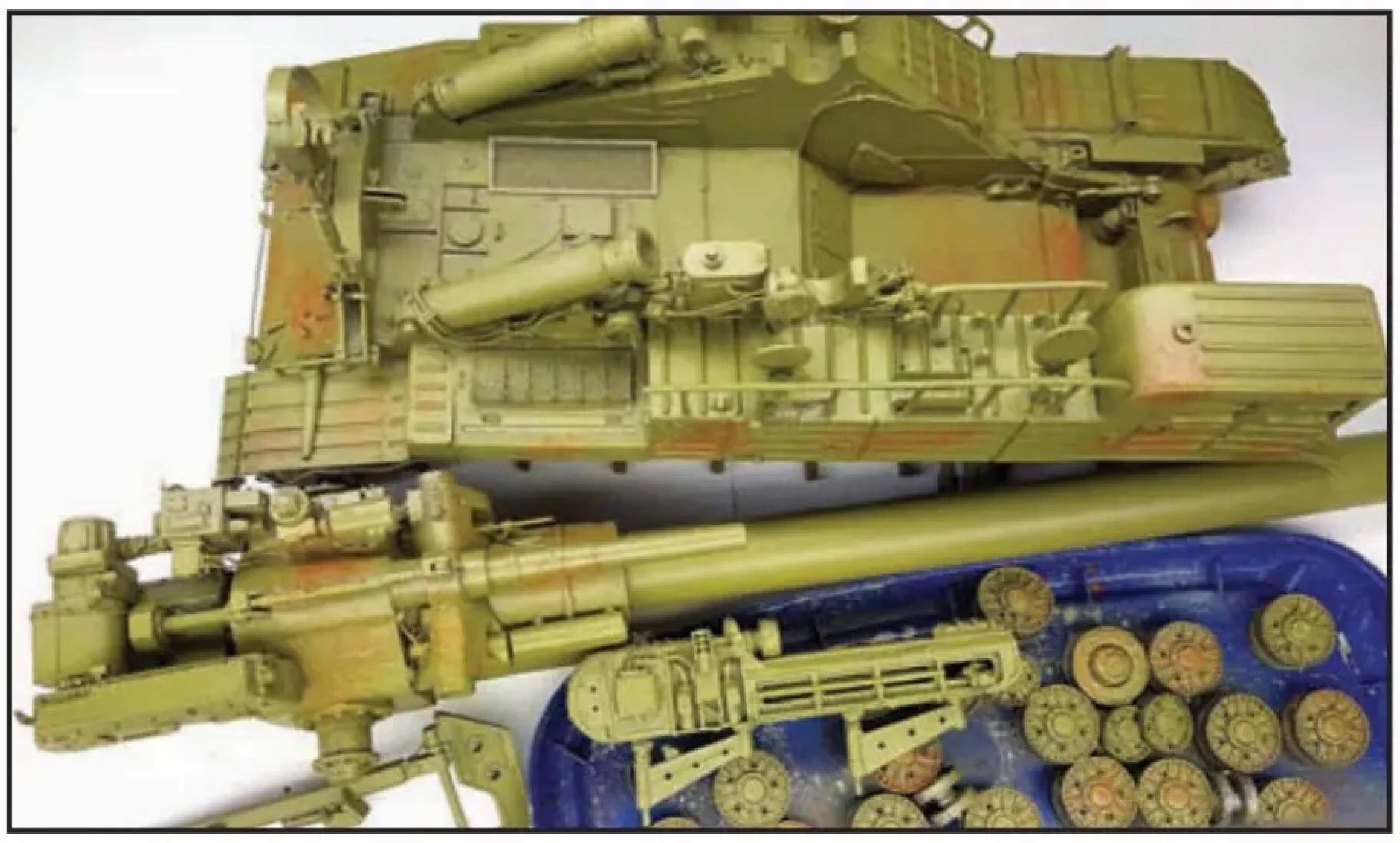


Degreasing any model with water and soap before painting is always a necessity for me but having been worried about delicate details I'd decided I'd be better off using a soft make-up brush and Tetrachloroethylene from an old bottle I've kept for many years. Effective, but dangerous chemical solution requiring a great deal of caution when using.

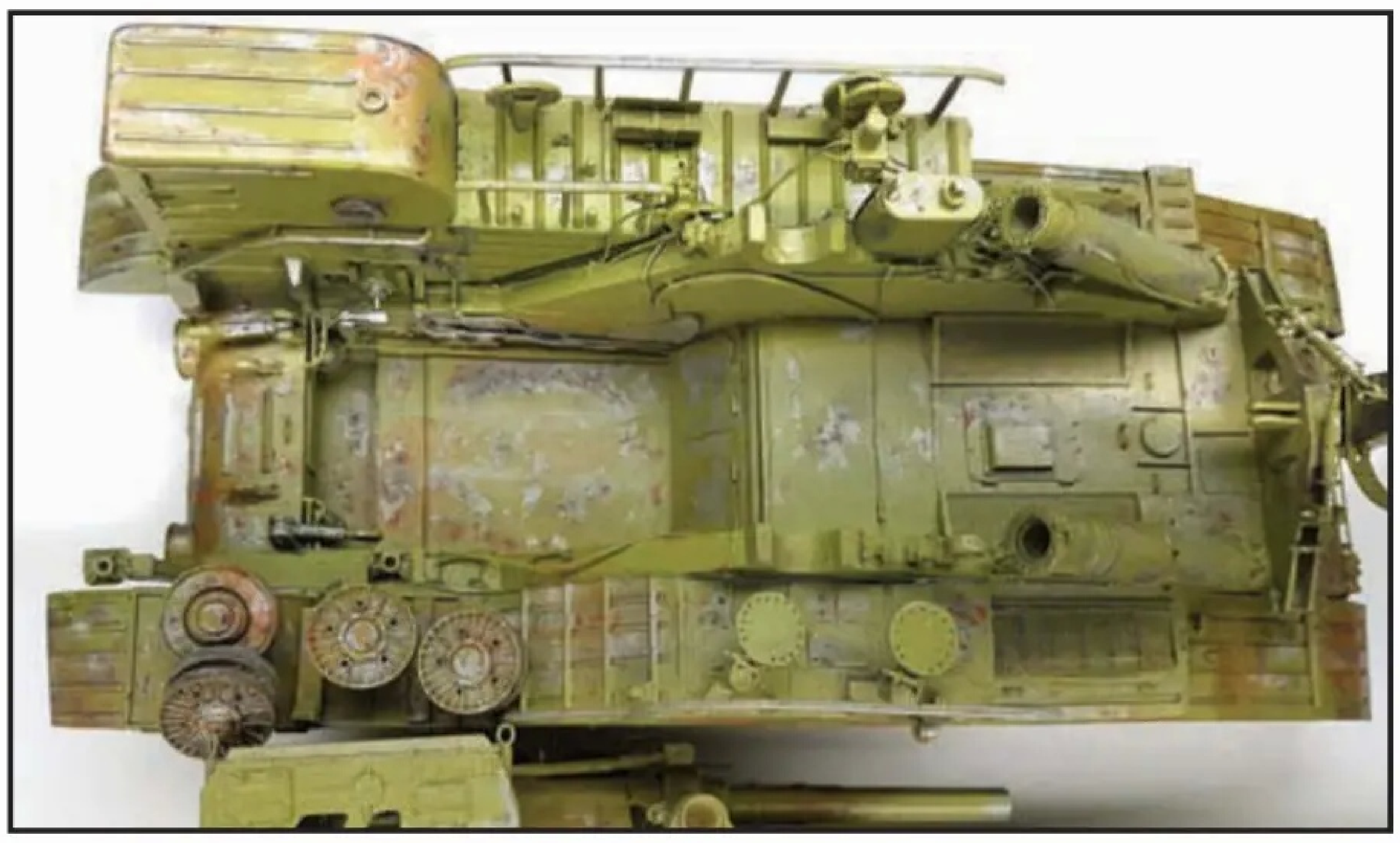
I masked the cabin's windows and tail light, then airbrushed MIG 2002 primer thinned with MIG 2000 thinners in thin layers showing up any surface defects to address.



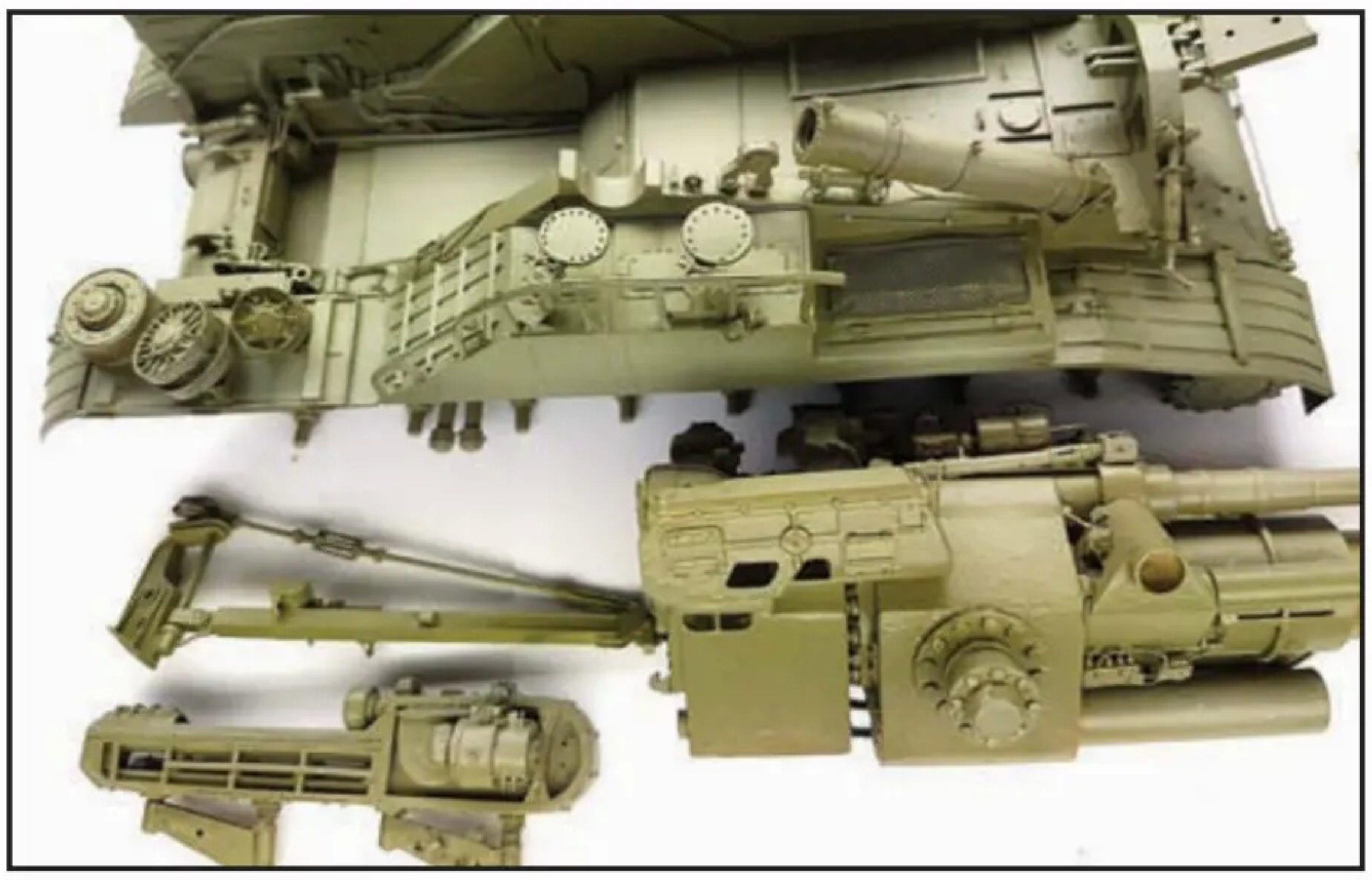
In the next step Vallejo 712 Steel was sprayed over the sub-assemblies changing the resin into raw steel!



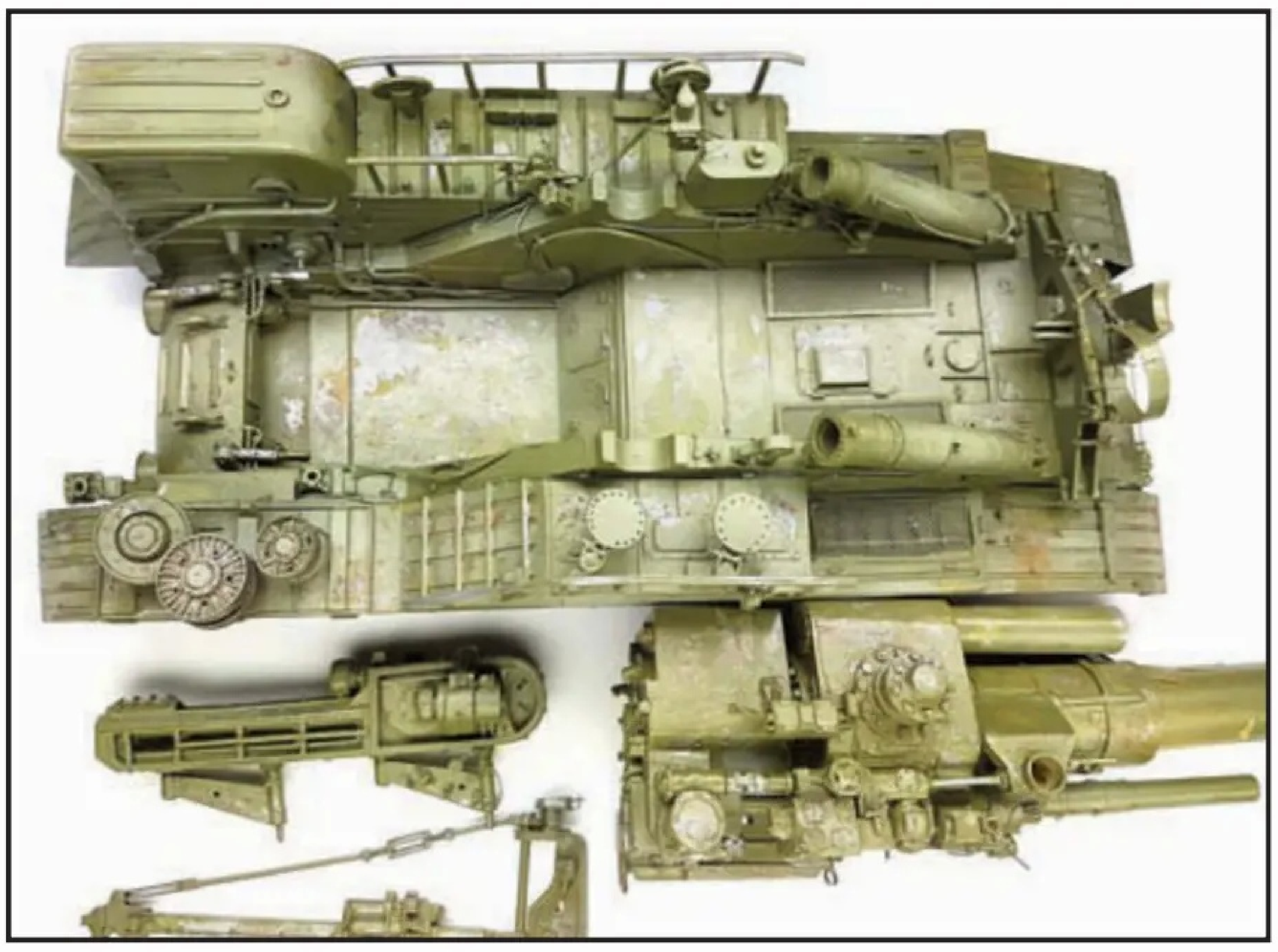
Followed the base coat of Vallejo Panzer Aces 301 Light Rust thinned with Vallejo 71.161 thinner and locally speckled over the certain spots. This primer red lead colour having rustproof good reputation was and is widely used across the all machinery industry.

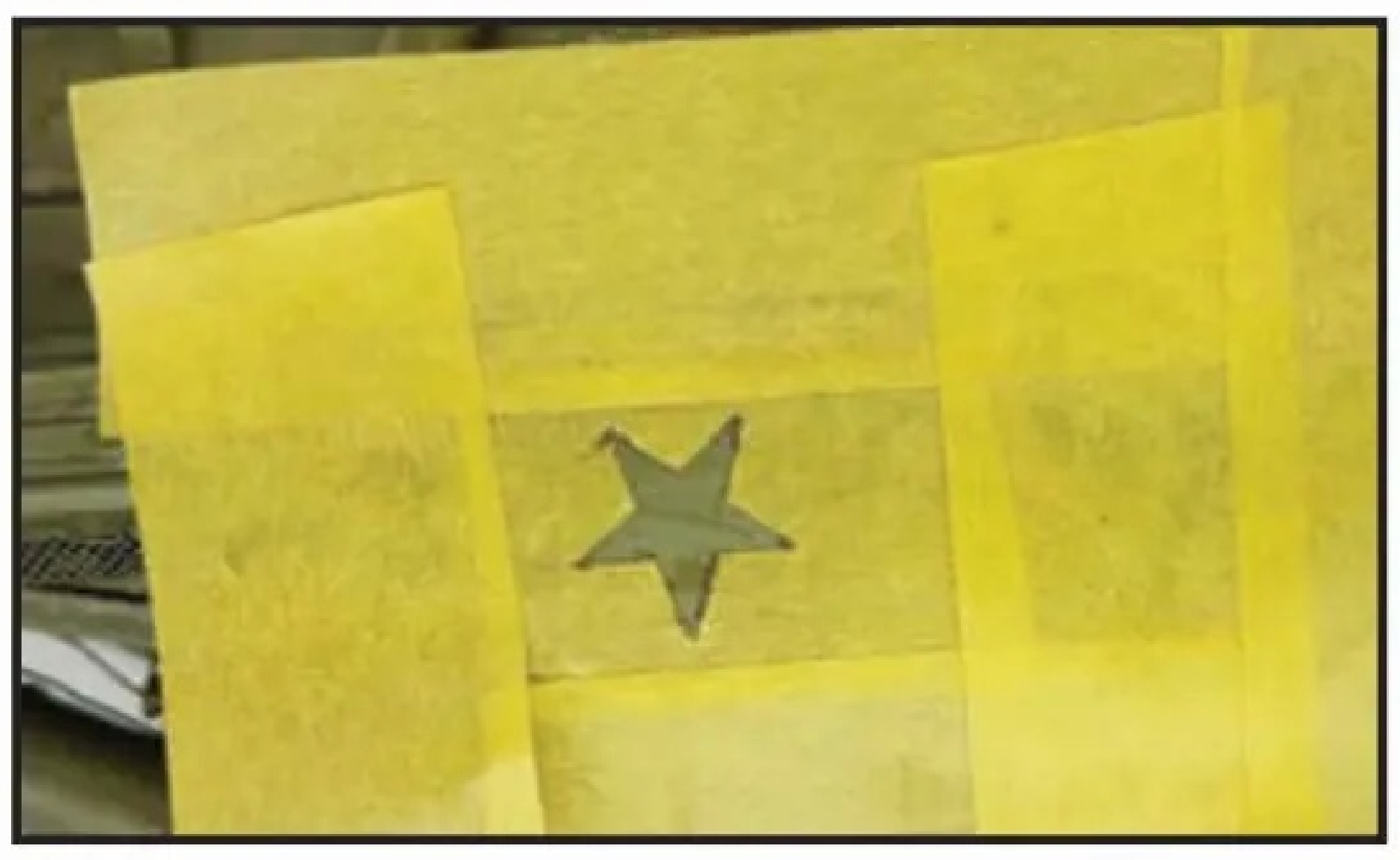


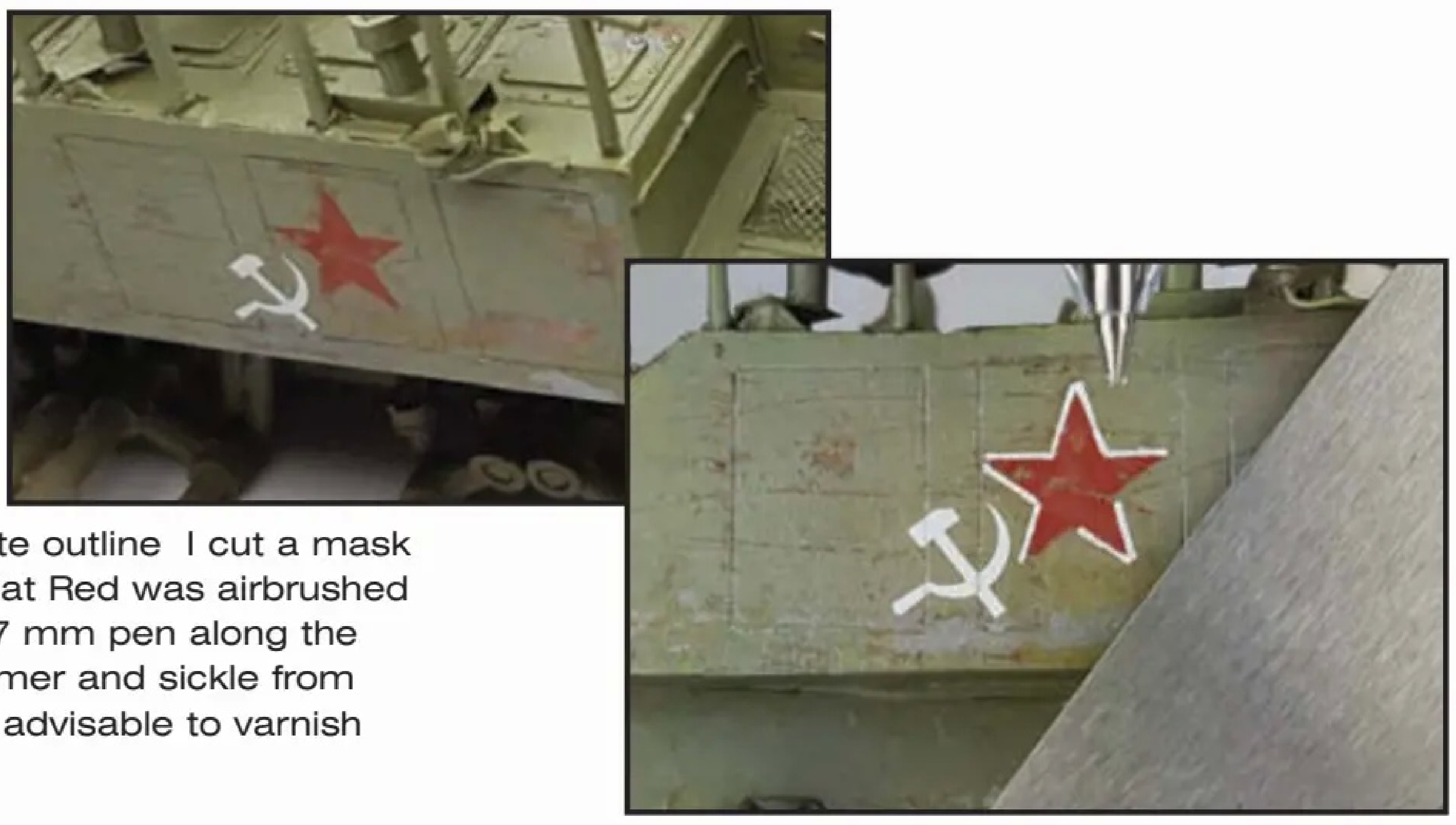
Over a hairspray coat I airbrushed MIG 932 Russian Base layer and after a cigarette break I moistened, scrubbed thereby revealed the red and steel spots applicated sooner.



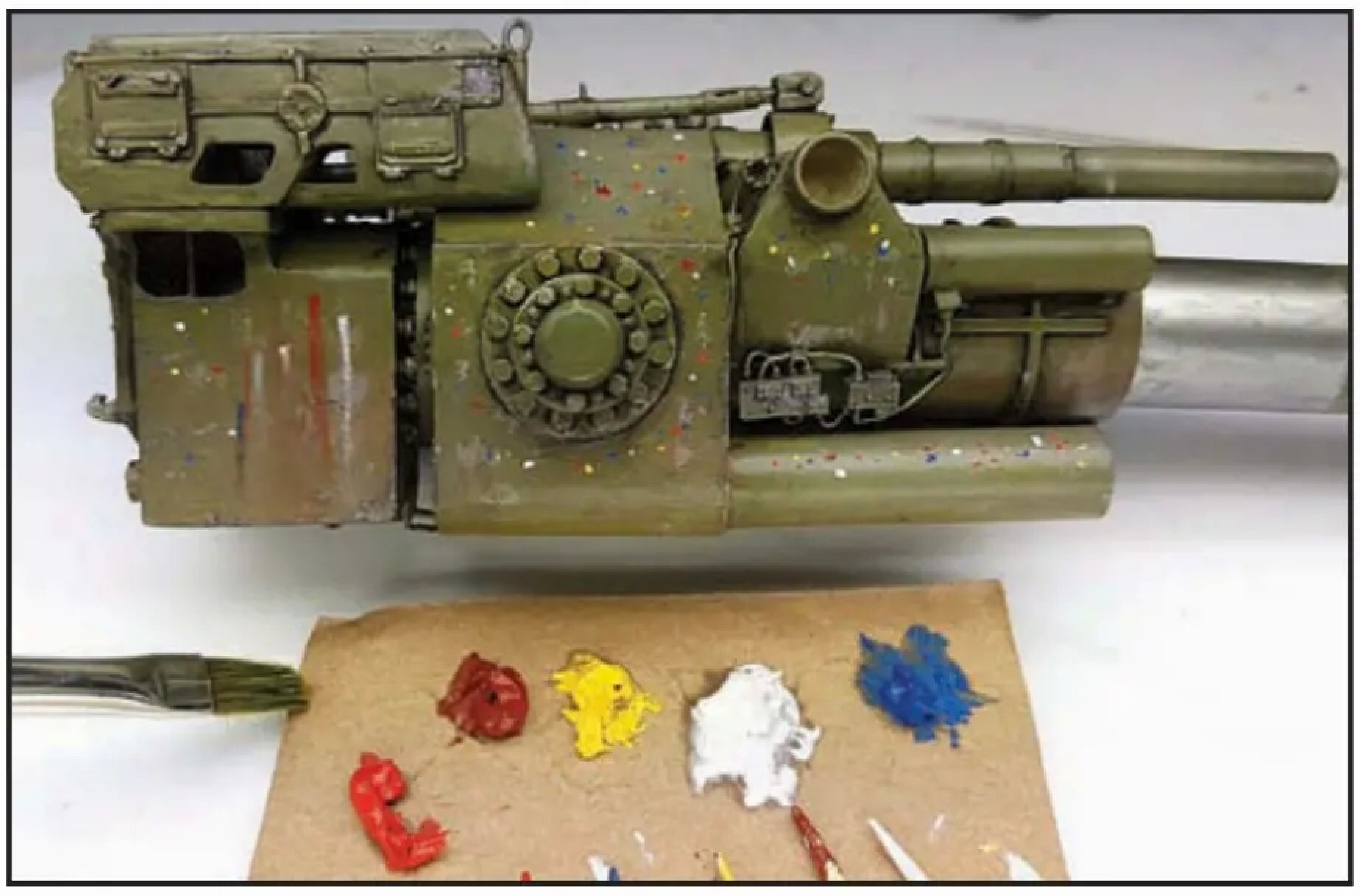
Now Tamiya X-22 Clear was sprayed as the protective layer. The same procedure as in previous step I applied for top MIG 083 Russian Postwar Green colour.







To create the Red Star prominent sign with white outline I cut a mask out using Tamiya masking tape. Tamiya XF-7 Flat Red was airbrushed and finally traced with a white Pilot BeGreen 0,7 mm pen along the metal ruler. I used the white decal of the hammer and sickle from the leftover decals. Before applying them it is advisable to varnish the surface with glossy varnish.



DELUXE
Materials
Scenic
RUST

WEATHERING

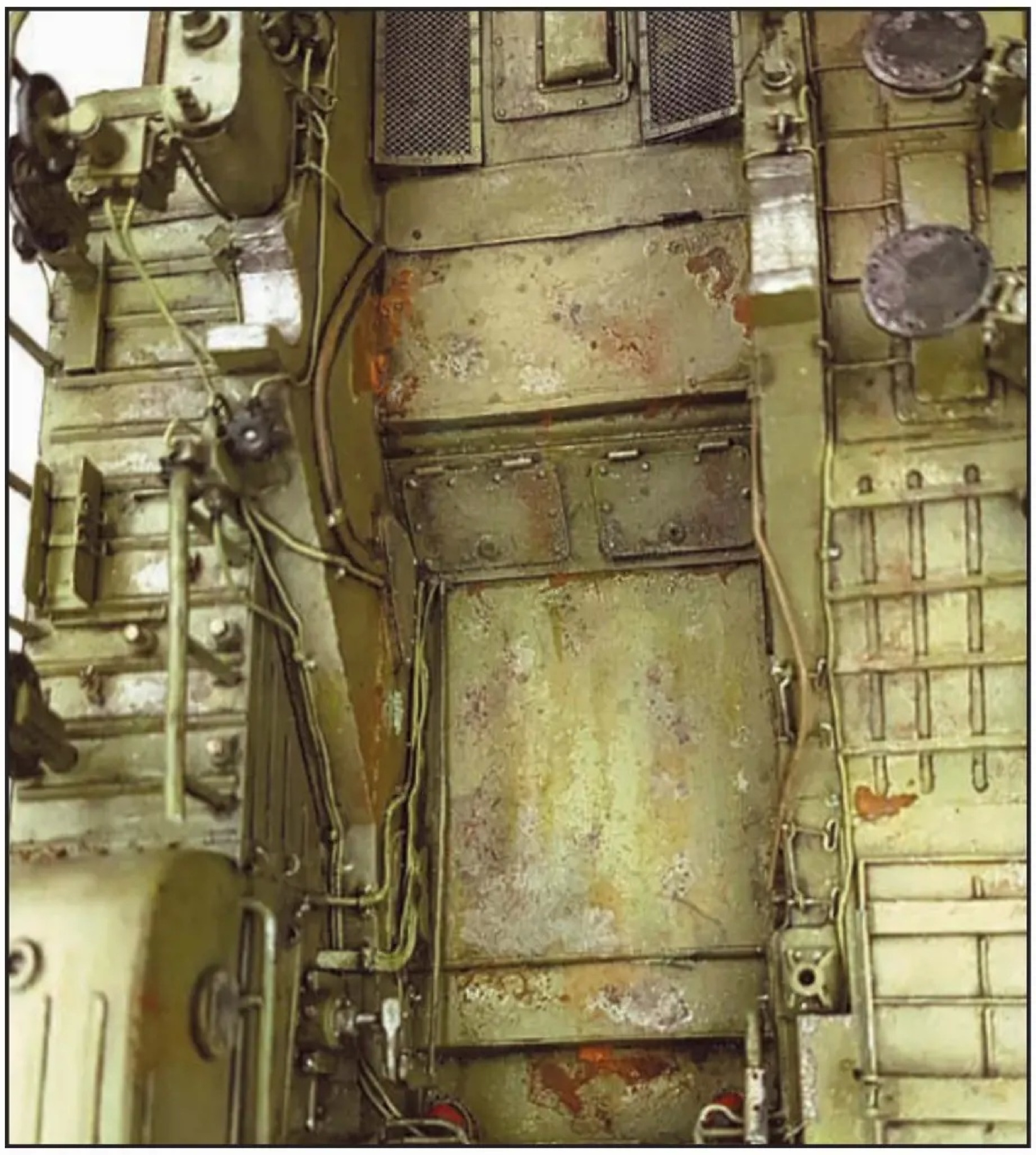
Several light coats of Sidolux floor varnish were sprayed to protect the previous work against subsequent chemical attacks.
The entire model received several filters of yellow, blue, red and brown oil 502 Abteilung colours to add some tonal variation. Each filter was diluted with AK047 White Spirit to a ratio of approximately 5% paint to 95% thinner.

The first step of weathering calling by someone the fading while the freckles method by me was realized with 502 Abteilung oil colours. I wanted to boost the visual interest of the paintbox by using multicolour dots subsequently blended. For this I used a wide flat brush slightly moistened in AK050 odorless thinner. Dots lying on vertical surfaces are blended by very gentle strokes in vertical motions while those on horizontal surfaces by circular movements. When finished I let it dry for a few days before proceeding with the next weathering steps.

In order to break the monotony of the kit, enhance its volumes, highlight and emphasise raised and recessed details a pin wash was applied. I made a darker wash. For this step seemed to me as a best mixture Burnt Sienna with Ivory Black and a few drops of Light Vermilion. Rust in specific places was created by help of Scenic Rust. I'd recommend try the Scenic before on a test plate. The result depends on many factors such as thick of layer.
For the final touch unifying completed whole I used Mr. Hobby Matt Topcoat spray.

Interestingly, let me mention a little confusing discovery. Studying pictures of the real vehicle on the Red Square Parade and adjacent streets I realized the sizes are different in contrast those officially given by Wikipedia. For instance, in a photo on a Moscow street there is an 2A3 and two soldiers. One stands on the chassis and the other squats beside. Most of the sources talk about the 2A3 height being 5.75m but try to imagine both soldiers are in a standing position...this would make the men almost 3 metres tall! Secondly, as is commonly known, the T-10 chassis with 7 road wheels had been used for the 2A3 Kondensator with the only one difference being it stands on 8 road wheels. Length between the first and seventh T-10 road wheels axles is 4550mm. It means between two axles is 758mm. Overall the T-10 chassis is 7250mm; 7250+758 = 8008mm which means the Kondensator chassis with one road wheel more couldn't be much more than 8 metres. Well, looking at a profile photo from a Red Square Parade there's an evident fact the protruding part of the cannon barrel is not longer than the chassis. Even shorter. So a quick calculation leads me to think the overall 2A3 is slightly over 16m and not 20m as is mentioned in many Internet sources and books such as Leo Marriott & Jonathan Forty's HEAVY WEIGHTS – THE MILITARY USE OF MASSIVE WEAPONS where it is stated a length of 65ft 7in.

In case my contemplation is wrong please accept my apologies for any confusion that may have arisen. I found all data aforementioned in the book SOVIET T-10 HEAVY TANKS AND VARIANTS written by J. Kinnear and Stephen L. Sewell.



CONCLUSION

I contacted Panzershop with a question; How many 2A3 models were sold before the production ceased, and the answer 'hundreds' astonished me. Why? I've have not seen any article describing a build of the 2A3 in any publication so far and none present at Model Shows I visited 'pictorially' or personally. So a question occurs whether those 'hundreds' are still waiting to be dragged from the stash to be built. I'd like to answer the question you're probably asking yourself if you have this kit; Is this model difficult to build? To be honest I don't think that strict beginners would obtain a perfect result but this kind of product is not aimed at them.

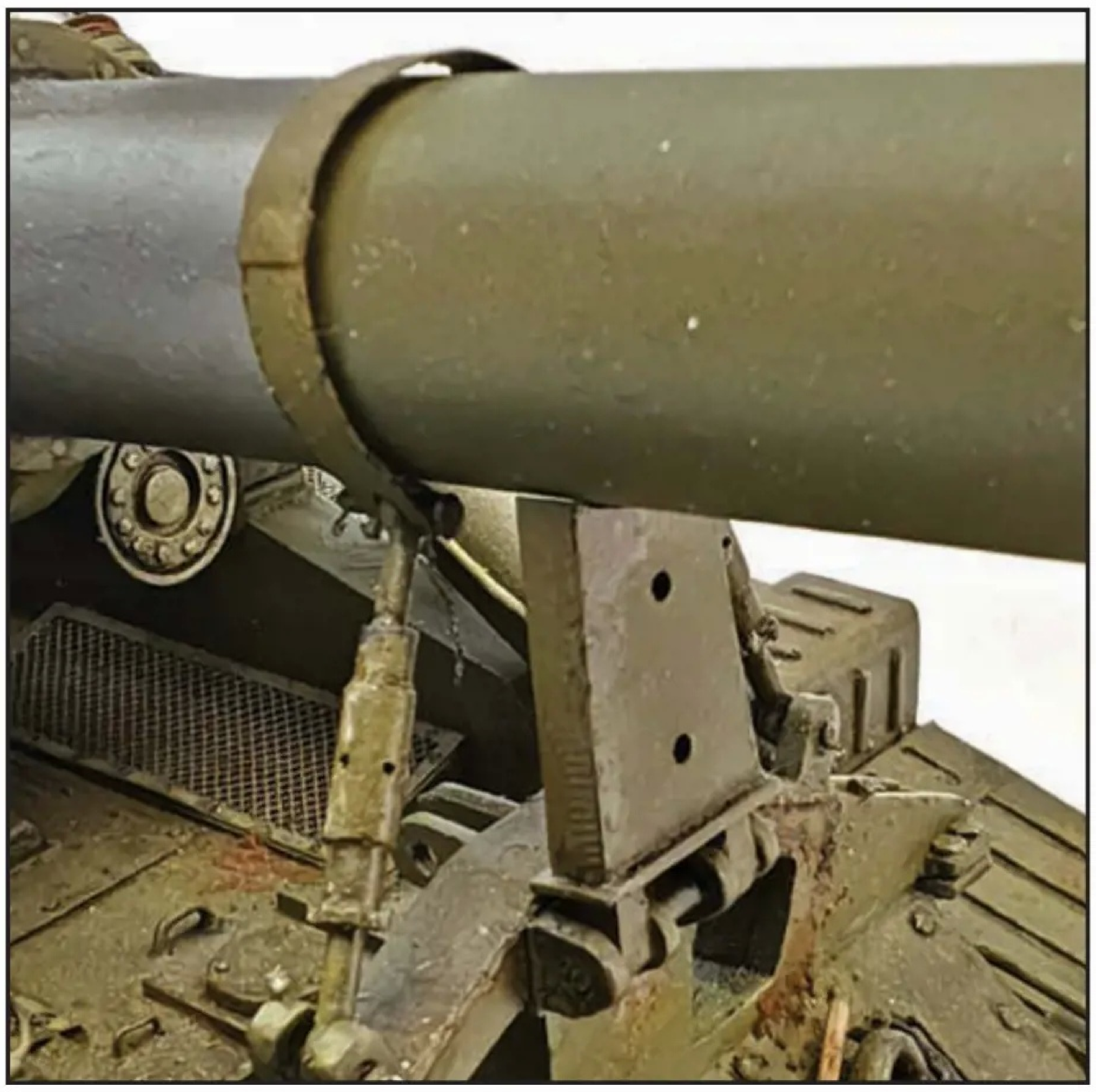
We all know that 'short run' manufacturers don't have the technical means to compete with the mainstream industry hence the absence of locating pins the presence of some parts needing to be scratchbuilt and in this case all connections have to be realized by means of a cyanoacrylate glue. Despite it's crudeness in places I enjoyed this build which called upon some different skills in the process. Anyhow, I don't recommend this model everyone because I have to diplomatically say the pain out-weighs the pleasure at times. Instructions describing individual parts, build process and reference photos are enclosed in the box in the form of a DVD and four A4 printed sheets are comprehensive and friendly. One of the more positive features.

Some of the resin parts are with surplus material and the others with shortage or air-holes so Tamiya putty and a file were at hand permanently. There is enclosed a PE sheet providing some details but most of them I had to scratchbuild including some missing features according to my reference photos. The tracks made by Friul were welcome but I found in the box tracks for one side only differed to the opposite side. A big thumbs-up to Panzershop who reacted on my complaint immediately and sent me the correct tracks promptly.

This Jekyll/Hyde project was giving me devastating and exhilarating moments in the course of 8 months building. Fortunately I crossed the finish line as Mr. Jekyll. Despite my criticism I'd like to thank the Panzershop team for the courage to bring a new and not overfamiliar subject to life in 1:35 which results in a real showpiece.

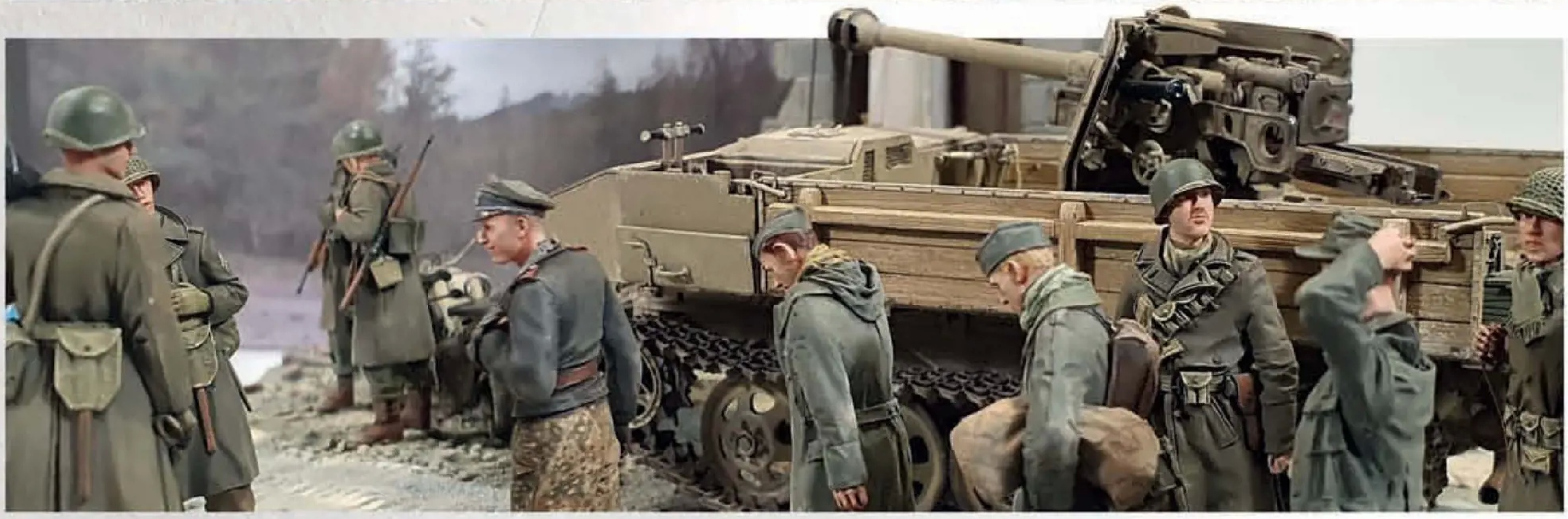
As already mentioned, this short-run kit was on the market long before the Trumpeter injection moulded mainstream kit was available.

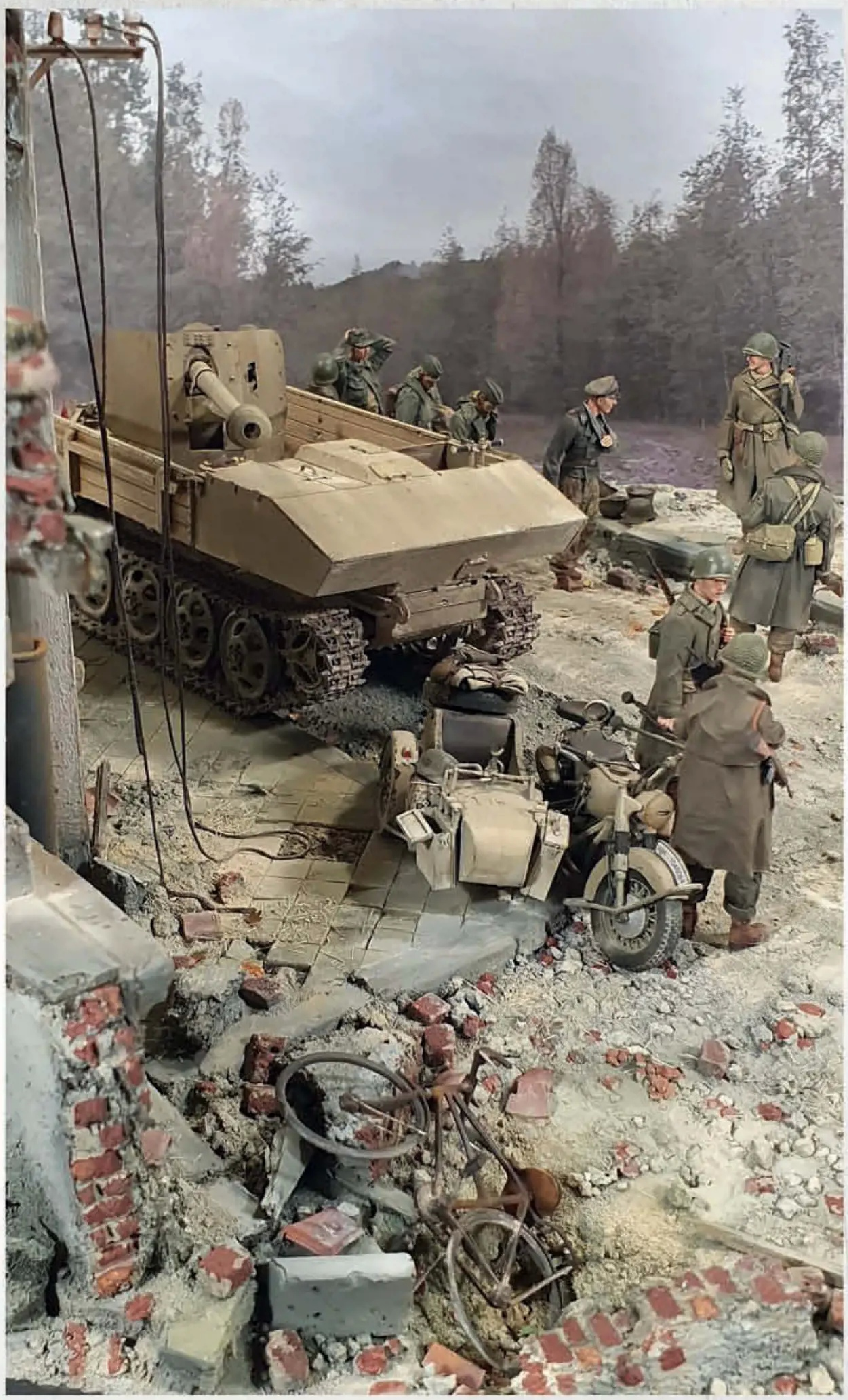
I hope my notes will help those who are still waiting to start their Panzershop 2A3.



2A3 KONDENSATOR NUCLEAR HOWITZER

monster





PIERRE CARDON CREATES A SURRENDER SCENE WITH THE VINTAGE ITALERI RSO/PAK 40

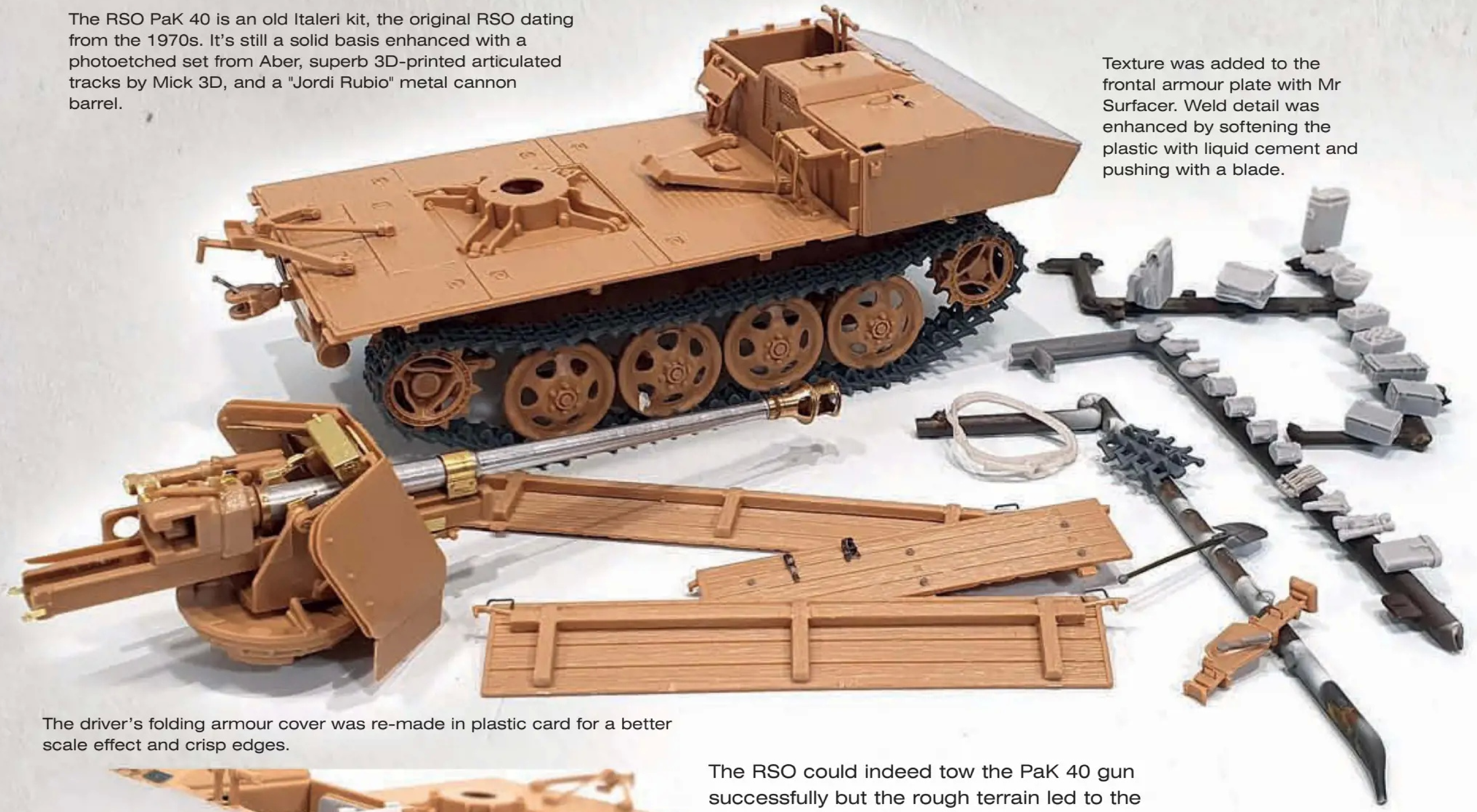
PAK YOUR BAGS...

THE WAR IS OVER, GERMANY 1945

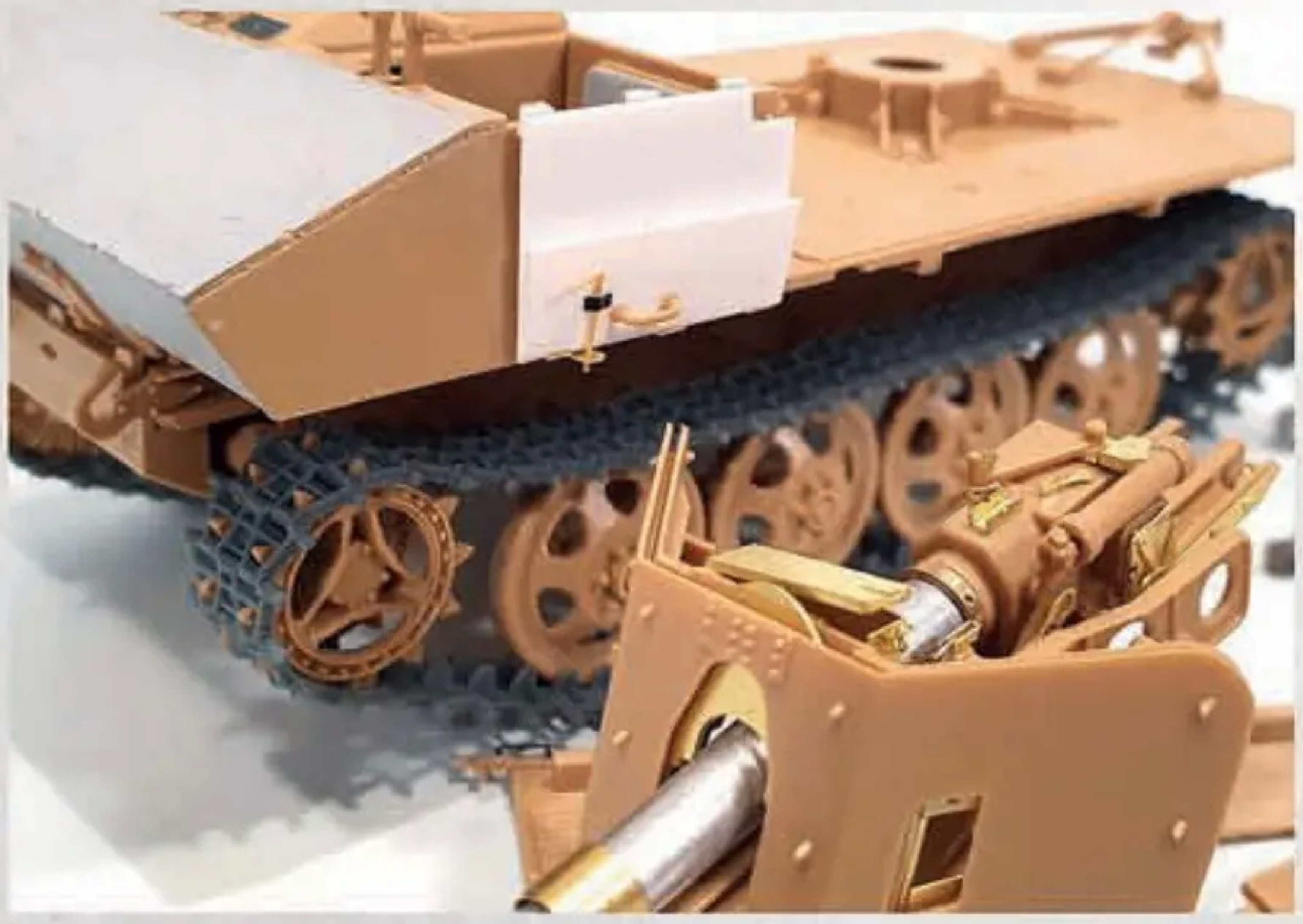
As WWII progressed and Germany faced a growing need for mobile anti-tank weapons many platforms were utilised. The Raupenschlepper Ost (RSO) built by Steyr was developed to meet the needs of the Wehrmacht to transport supplies to the front lines in the East where wheeled vehicles struggled with the lack of roads. Successful at their initial brief, over 25,000 RSO were produced and it was deemed a suitable candidate to mount the 7.5cm PaK 40.

The RSO PaK 40 is an old Italeri kit, the original RSO dating from the 1970s. It's still a solid basis enhanced with a photoetched set from Aber, superb 3D-printed articulated tracks by Mick 3D, and a "Jordi Rubio" metal cannon barrel.

Texture was added to the frontal armour plate with Mr Surfacer. Weld detail was enhanced by softening the plastic with liquid cement and pushing with a blade.



The driver's folding armour cover was re-made in plastic card for a better scale effect and crisp edges.



The RSO could indeed tow the PaK 40 gun successfully but the rough terrain led to the calibration of the gun sights being way-off when deployed for action. Unsuccessful tests were also done where the gun was carried on the bed of the RSO leading to the development of the mounted gun in 1943. Hitler was keen on the design; on paper here was an economical design offering mobility and firepower and ordered production of 400 per month despite there being any combat trials.

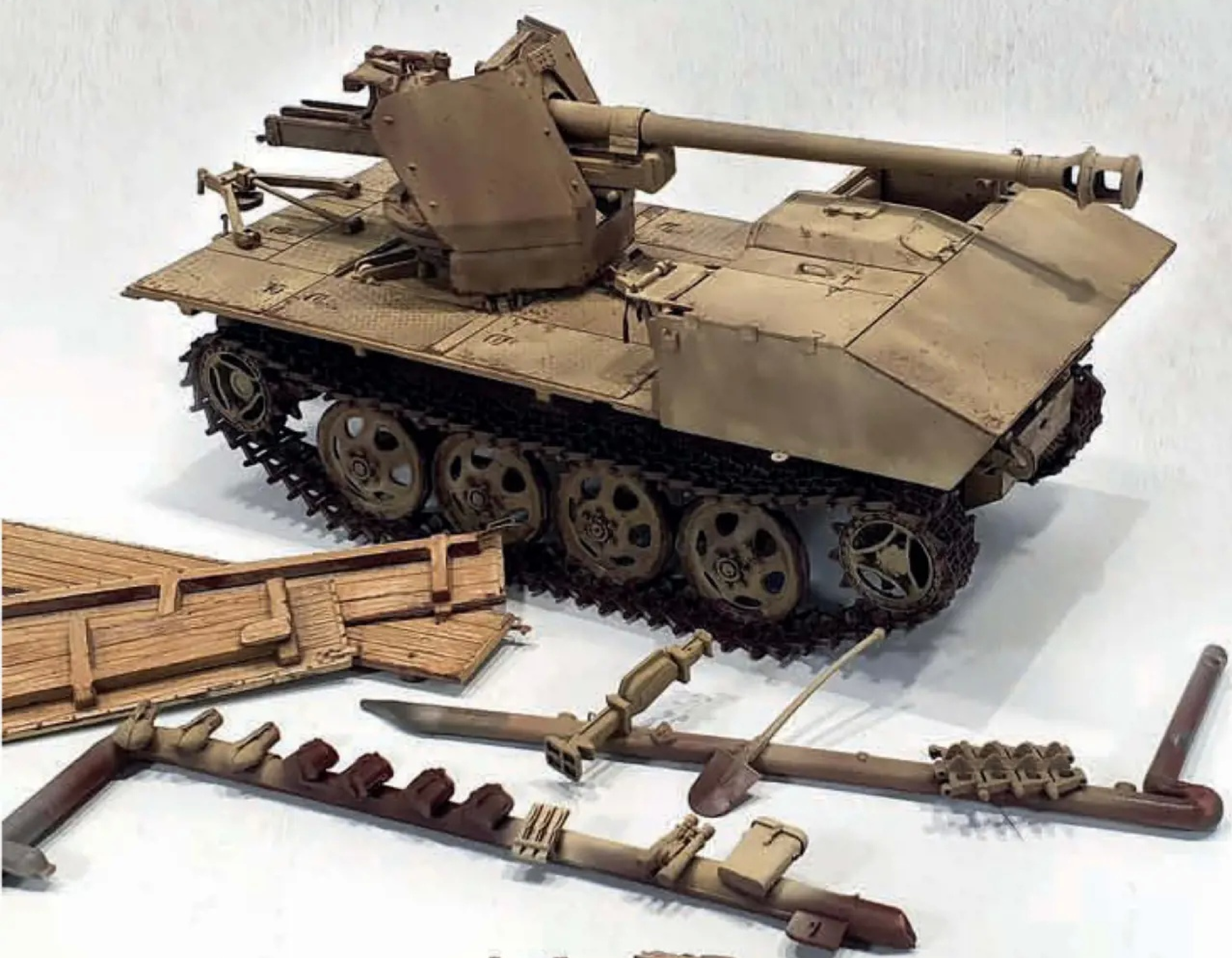
The low silhouette of the re-designed cab allowed 360 degree traverse and some protection at least for the drivers.

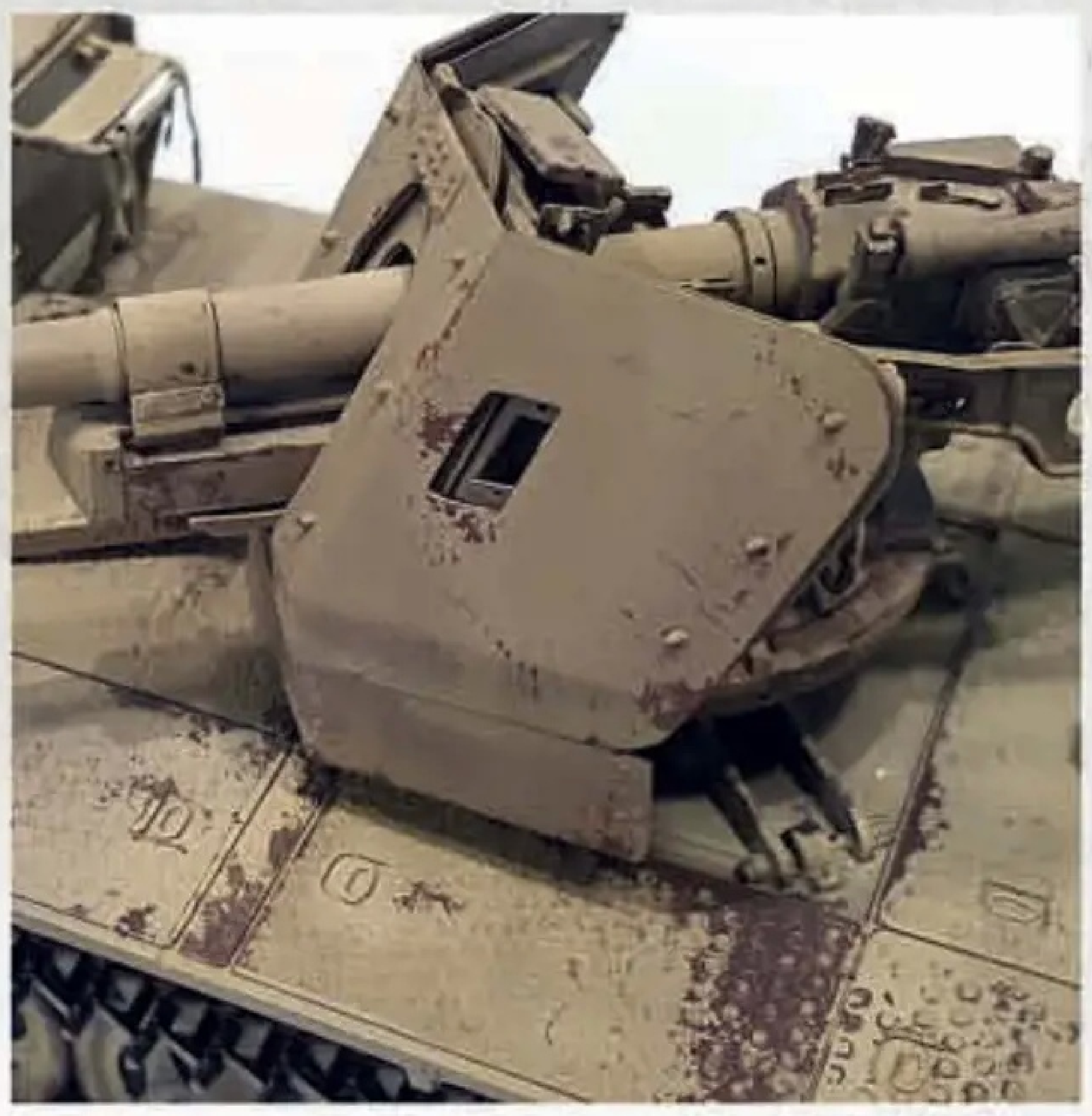
In reality, less than 100 RSO/PaK 40s were known to have been completed. The vehicle was far from popular with crews who disliked the lack of armour and high silhouette, the 'work' area of the platform was restrictive and the floor ammo lockers were difficult to access in action.

Being originally designed for use in the cold weather of the Eastern Front engine overheating wasn't an issue but with the enclosed engine compartment along with warmer climates this became a constant problem for the crews. These negative features earned the nickname 'Rollender Sarg Ost' a take on the RSO abbreviation meaning 'Rolling Coffin East'.

As I'd planned to use the 'Hairspray' technique a base primer coat mixed from red and black was the first coat of colour. German vehicles commonly used red-brown oxide primers.

Once the primer was dry a few misted coats of hairspray were applied. This can be done direct from the can or decanted into an airbrush. Several of the paint brands on the market have their own 'chipping fluid' which is convienient.

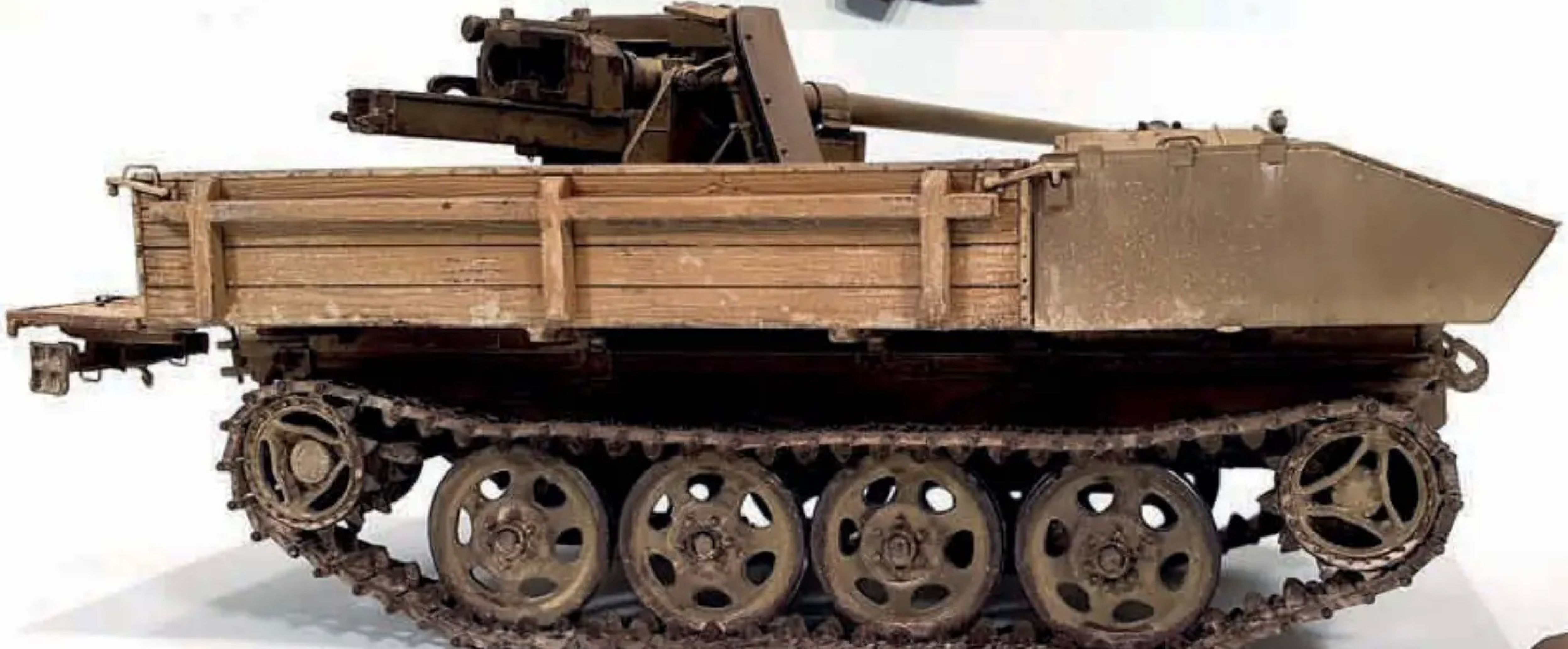




The base colour is Tamiya XF60, lightened with white and gently airbrushed onto highlighted and sun bleached areas.
Here we can also see the effects of worn and damaged paint achieved.

Before the base colour dunkelgelb is properly hardened the paint surface is moistened with clean water and scrubbed with a stiff bristled old brush revealing random patches of the colour underneath. This technique has been around for many years and often discussed but if you've not tried it before be sure to give it a go.

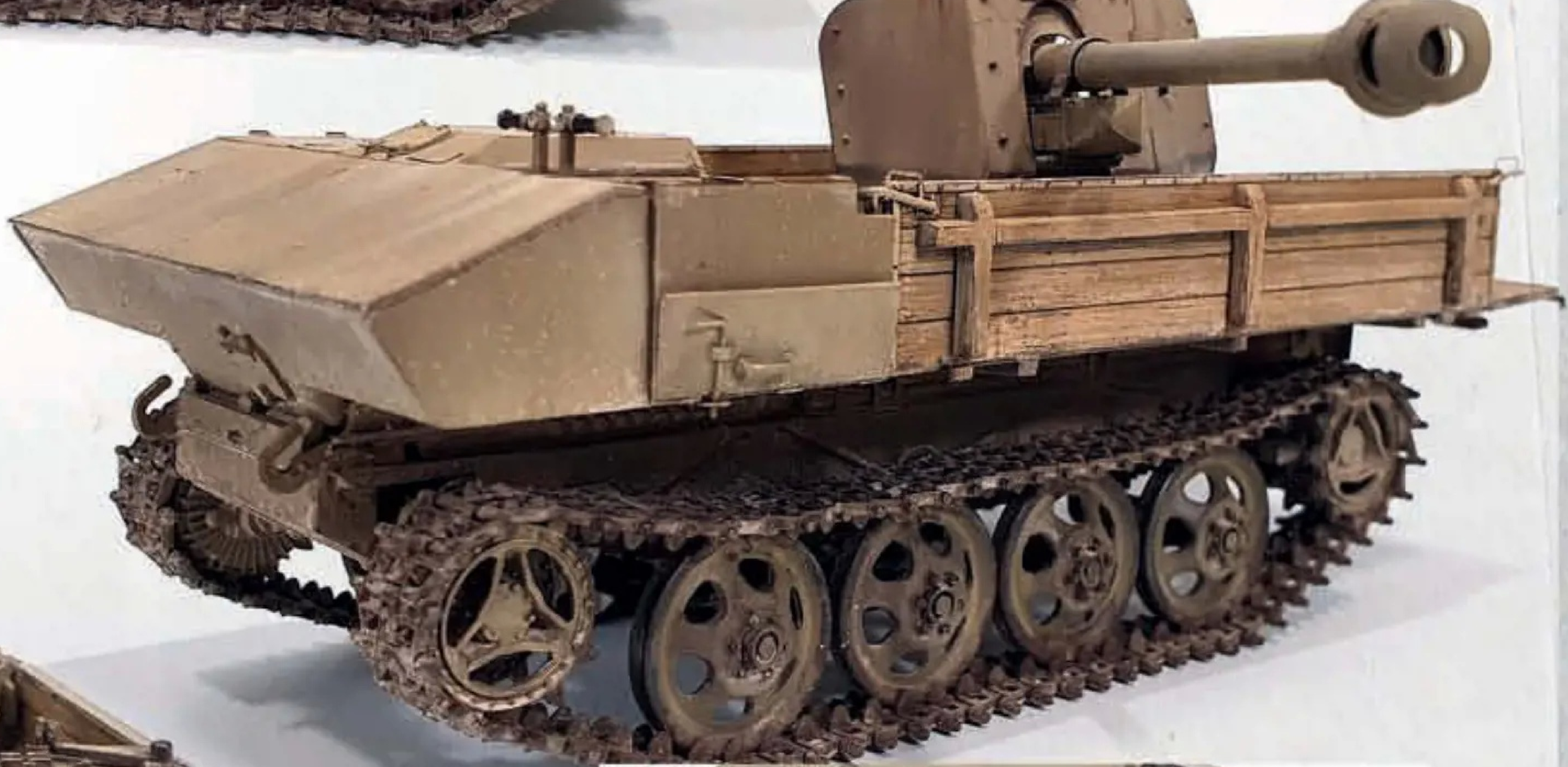
Trial and error is the key with different brands of paints/thinners and thickness of application giving varied results



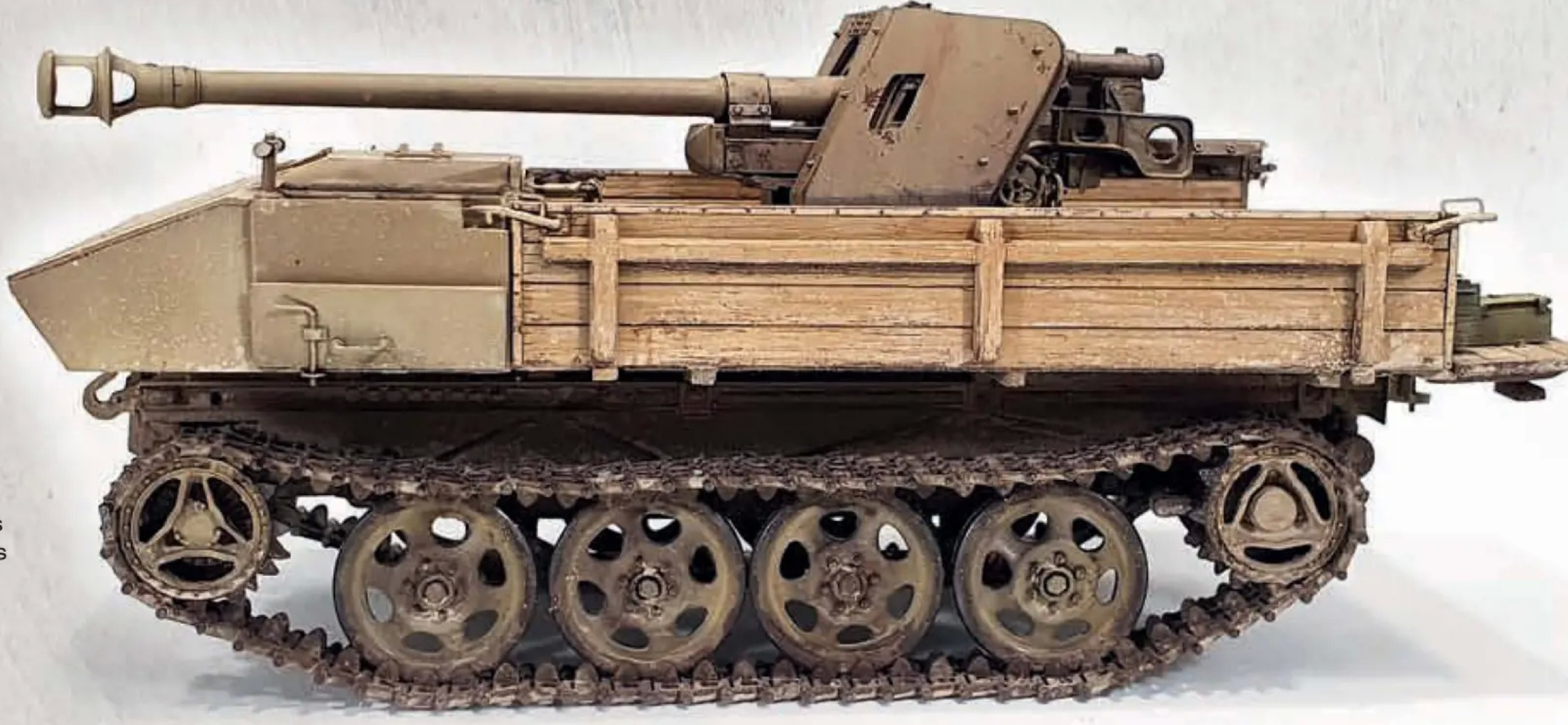
Oil colours were heavily diluted for washes to create shadows and lighter oil colours mixed from ochre and white blended to create highlights.

Note the heavily worn contact surfaces of the steel roadwheels. A finishing touch to these was a rub with a soft graphite pencil to suggest polished raw steel.

The lack of rubber tyres on such a small vehicle must have contributed to a pretty harsh and noisy ride!

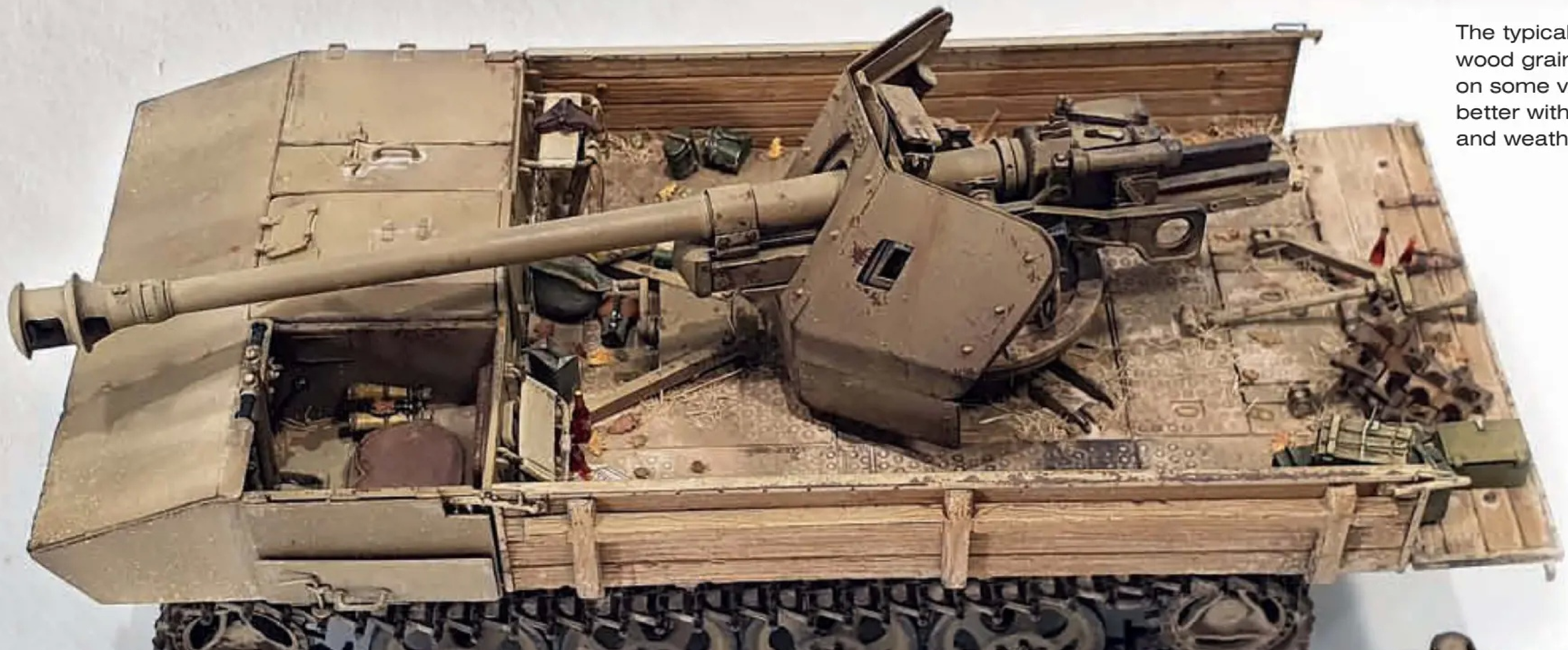


A paintbrush loaded with a pigment powder and thinner mixture given a 'blast' with just air from the airbrush gives effective splattered mud, dried out in this instance.



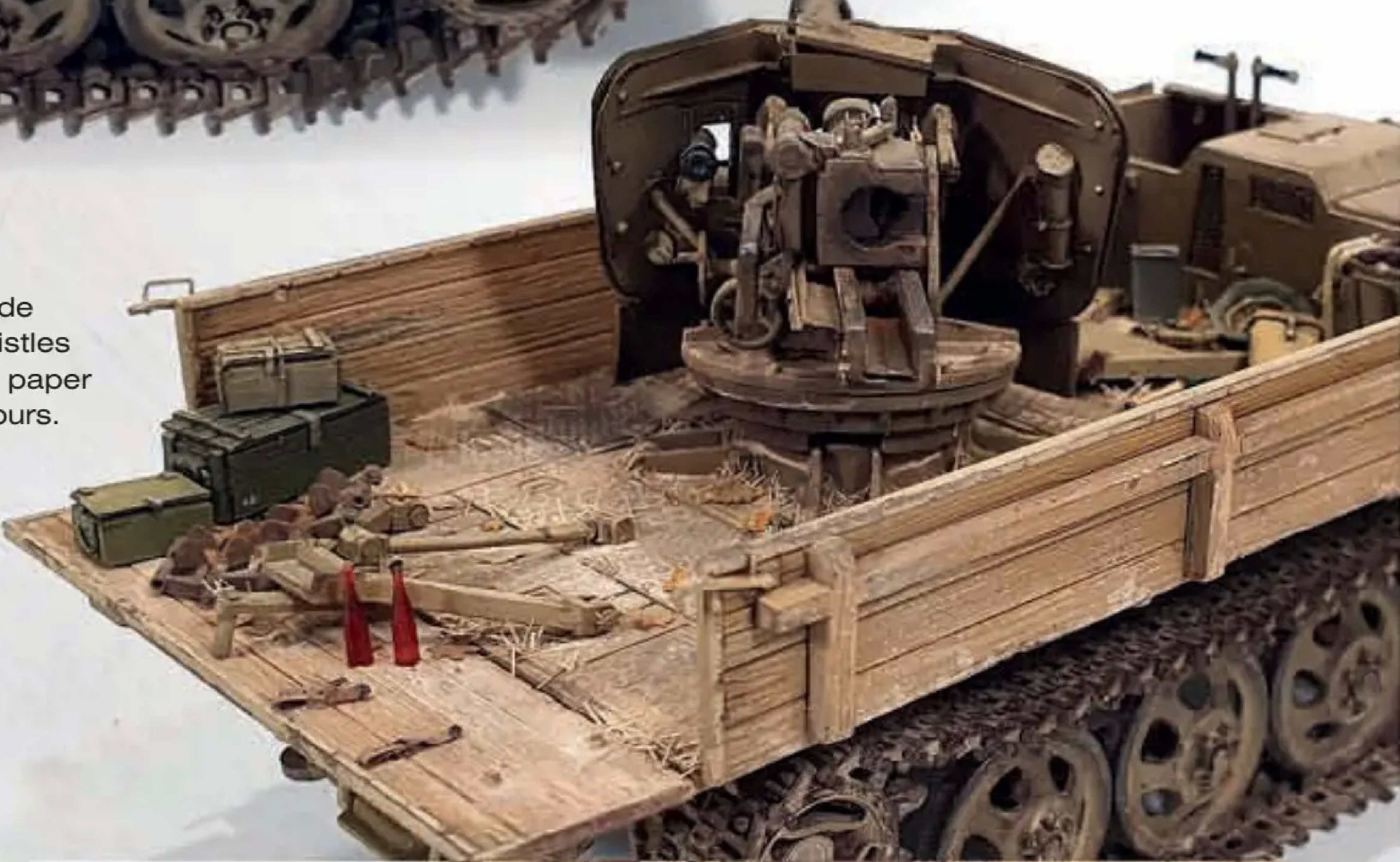
Pigment and thinner mix was used as a wash on the tracks and some wheel detail.

The typically over-the-top wood grain texture found on some vintage kits looks better with careful painting and weathering.



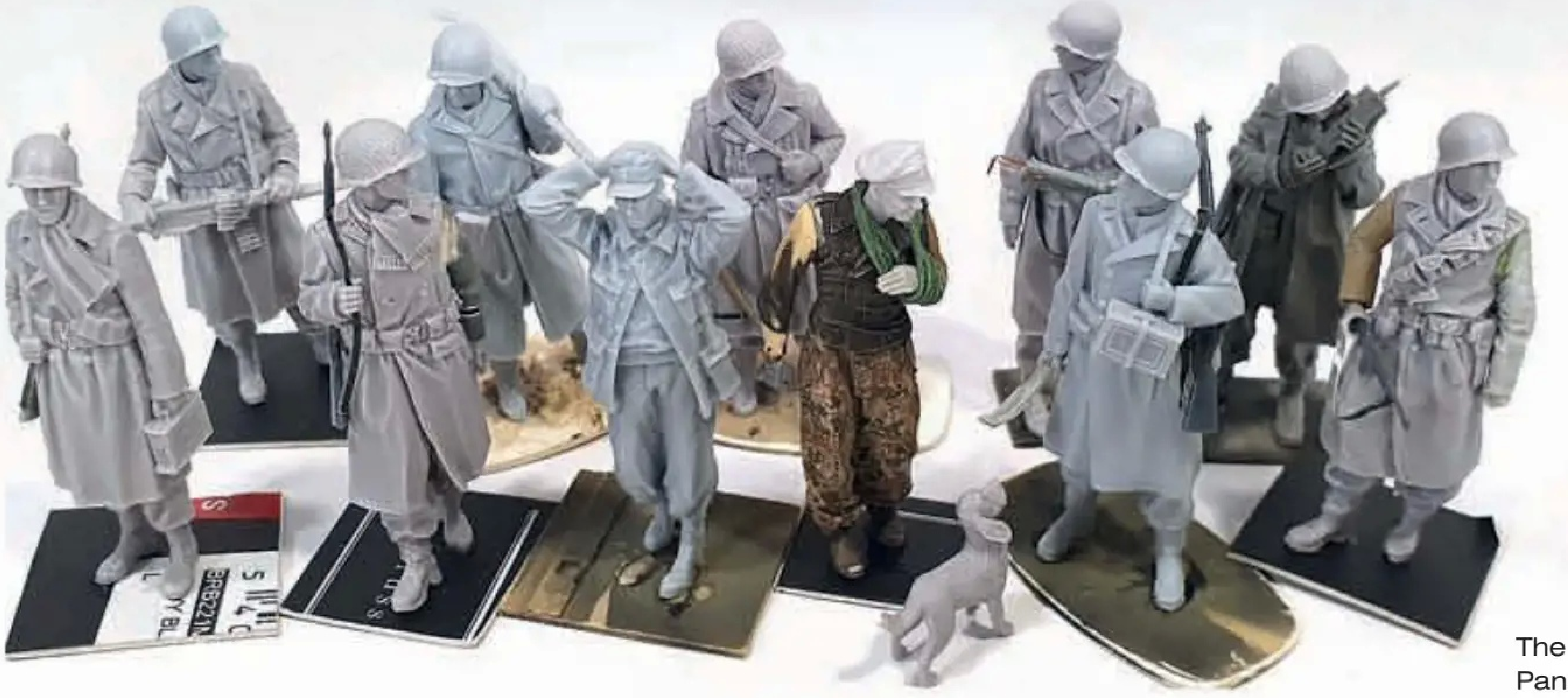
Overhead view shows the driver's and co-driver compartments. The co-driver station has the folding cover in place. Note also the folded crew seats; a simple tube steel frame.

The dry grass was made from old paintbrush bristles and the old leaves are paper tinted with various colours.



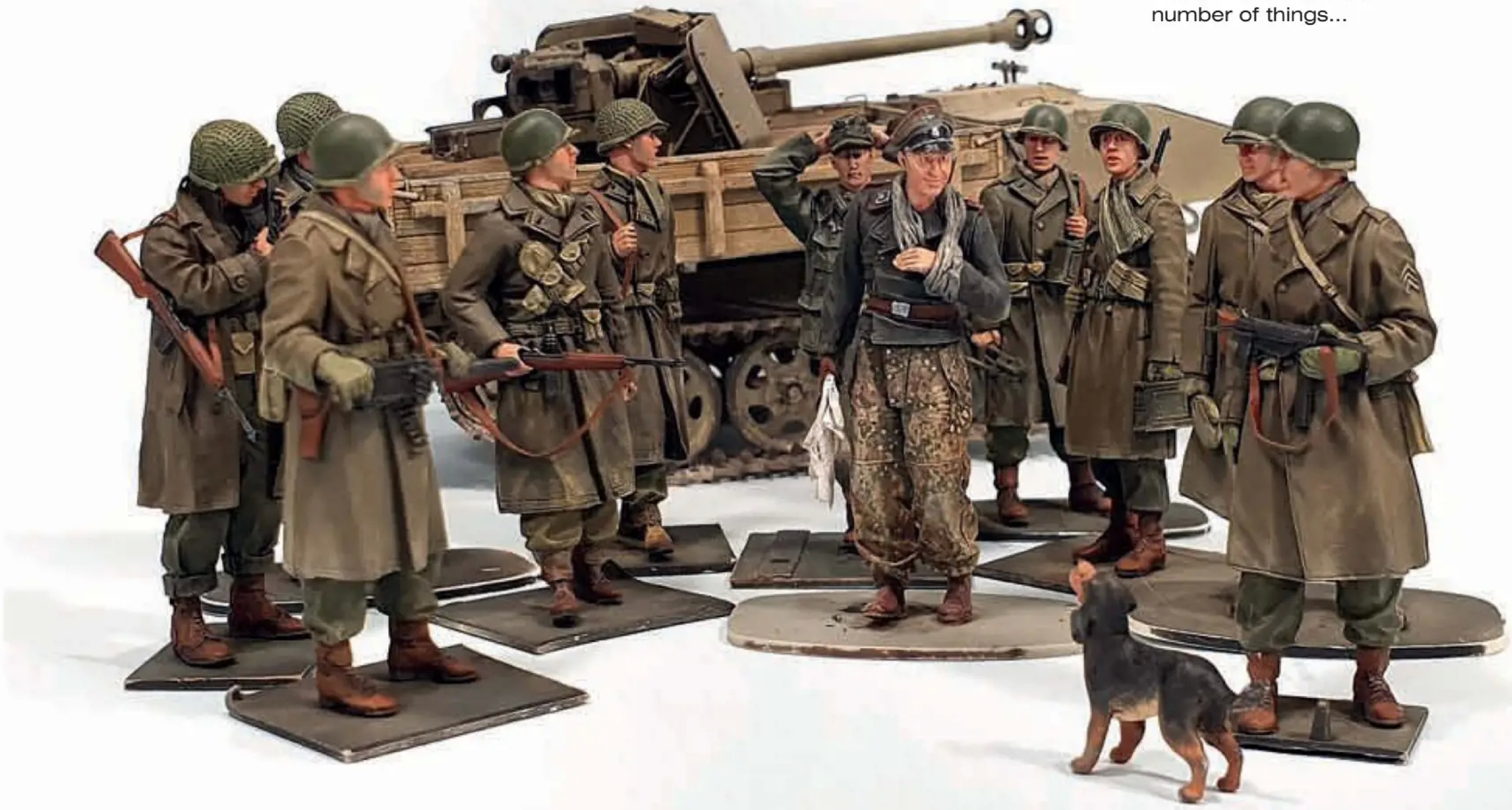
The 'clutter' strewn around the rear compartment adds greatly to the interest and colour of the finished piece and also the sense of abandonment as the surrendering troops gather essential belongings.

More modern tooled kits of the PaK 40 are available but with a few detail enhancements the old Italeri version still looks decent.

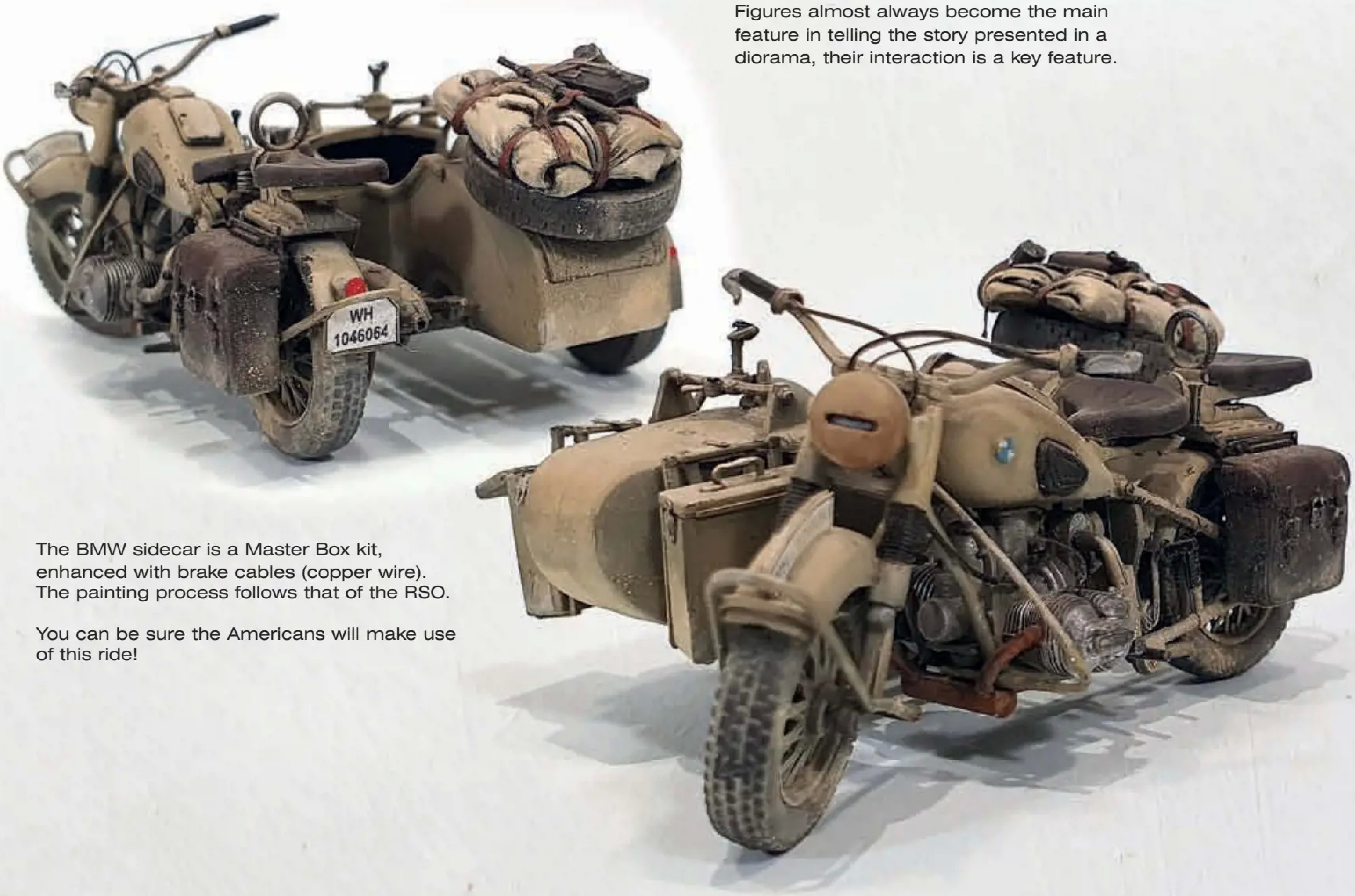


The figures are a mix of Alpine and Stalingrad references, painted in acrylics and finished with oil paint shading and highlighting. A matt acrylic varnish completes a more realistic rendering of the dusty cloth of the uniforms.

The eye contact between the Panzer officer and the U.S. Sargeant is a major focus in the composition of the diorama, his wry smile could suggest a number of things...

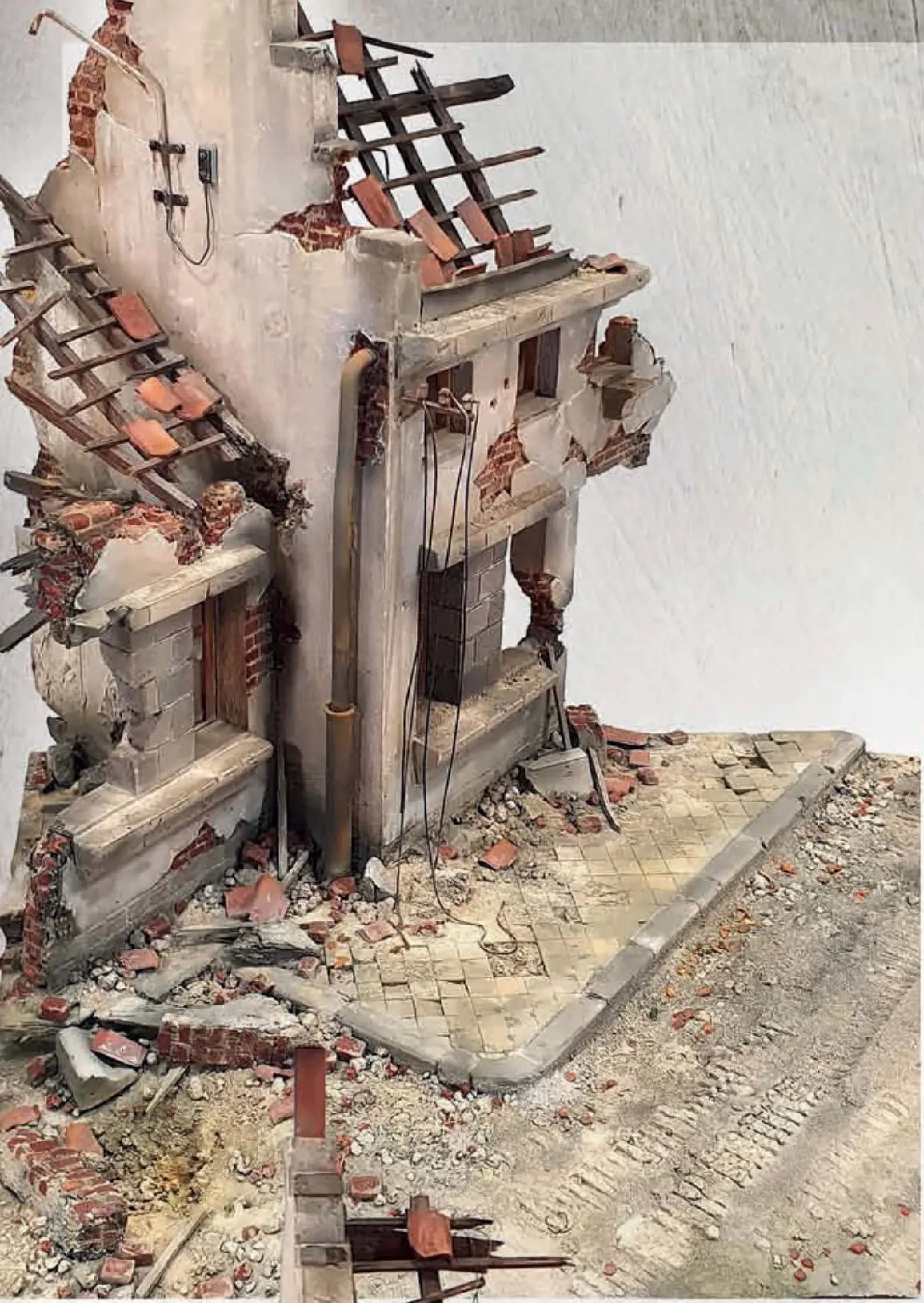


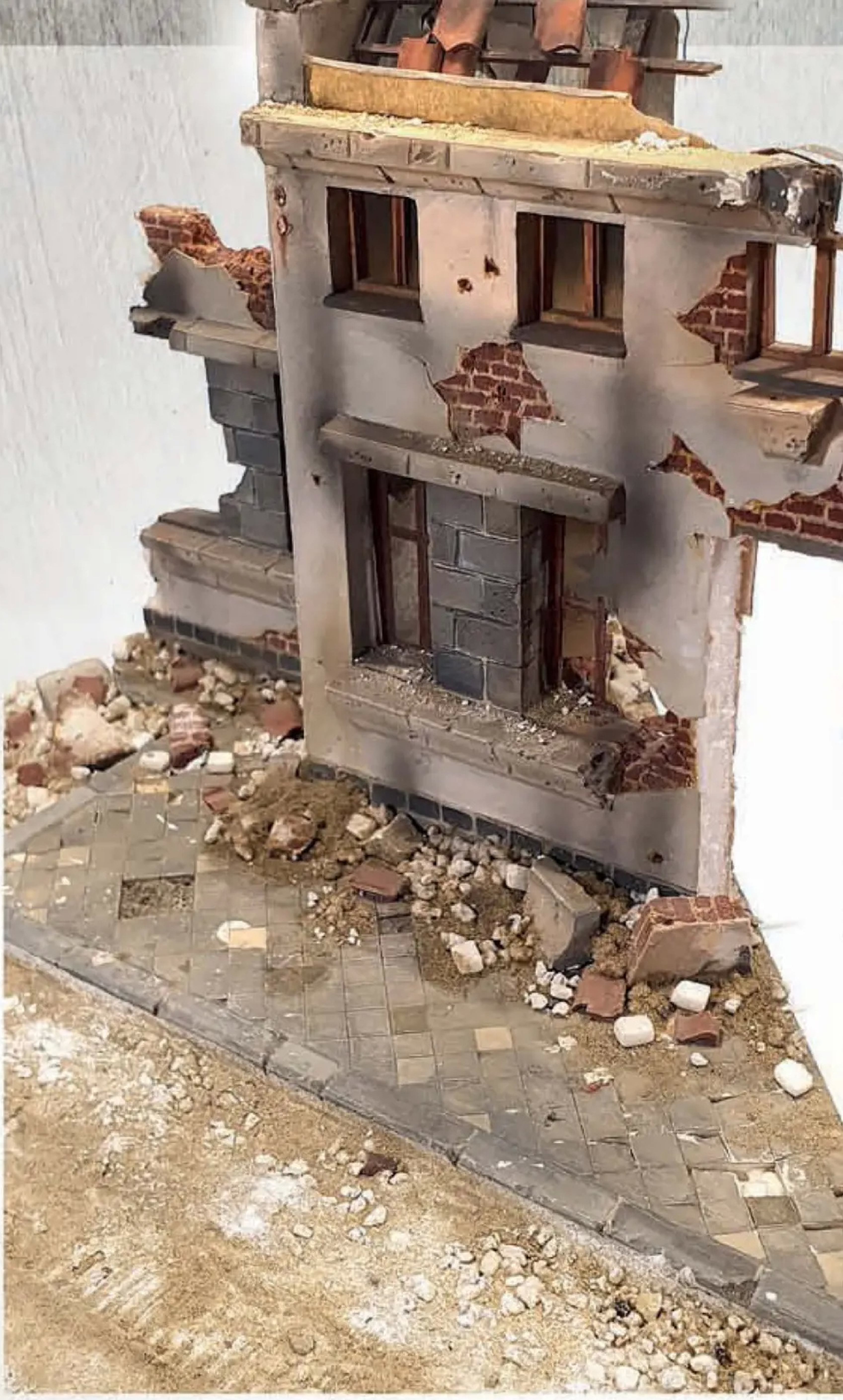
Figures almost always become the main feature in telling the story presented in a diorama, their interaction is a key feature.

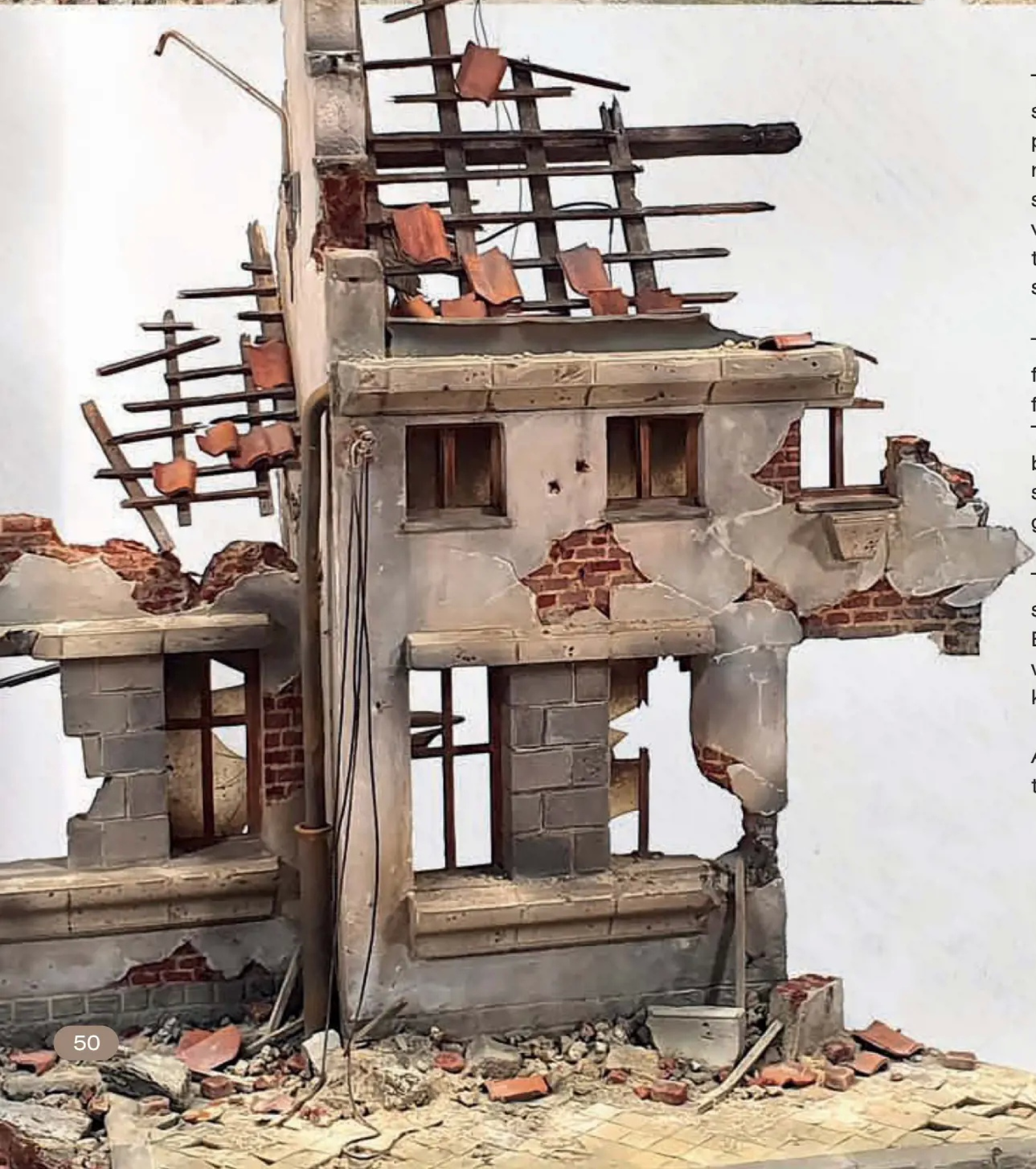


The BMW sidecar is a Master Box kit, enhanced with brake cables (copper wire). The painting process follows that of the RSO.

You can be sure the Americans will make use of this ride!







The destroyed building is made of foam board skimmed with household finishing plaster. There are plenty of read-made building kits on the market but making your own to exactly suit your scene is pretty straight-forward and many model retailers supply various foam sheet which is really easy to shape and texture. Acrylic paint is best used on foams as many solvents can melt the surface.

The roof frame is balsa wood and the tiles were folded from thick lead sheet. The pavement is made again of foam board with the patterns scribed into the surface. The road is textured directly into the polyurethane block used for the base and covered with plaster with sand, pebbles and pigment all fixed with diluted white glue.

The fallen sections of brickwork and masonry were shaped from more foam sheet and broken plaster. Electric cables are from soft wire and the spares box was raided for small fittings and fixtures. Sections of kit sprue created the drainage pipes.

All paints are acrylic on a black primer base. A few touches of pigment finish the job.

1:16
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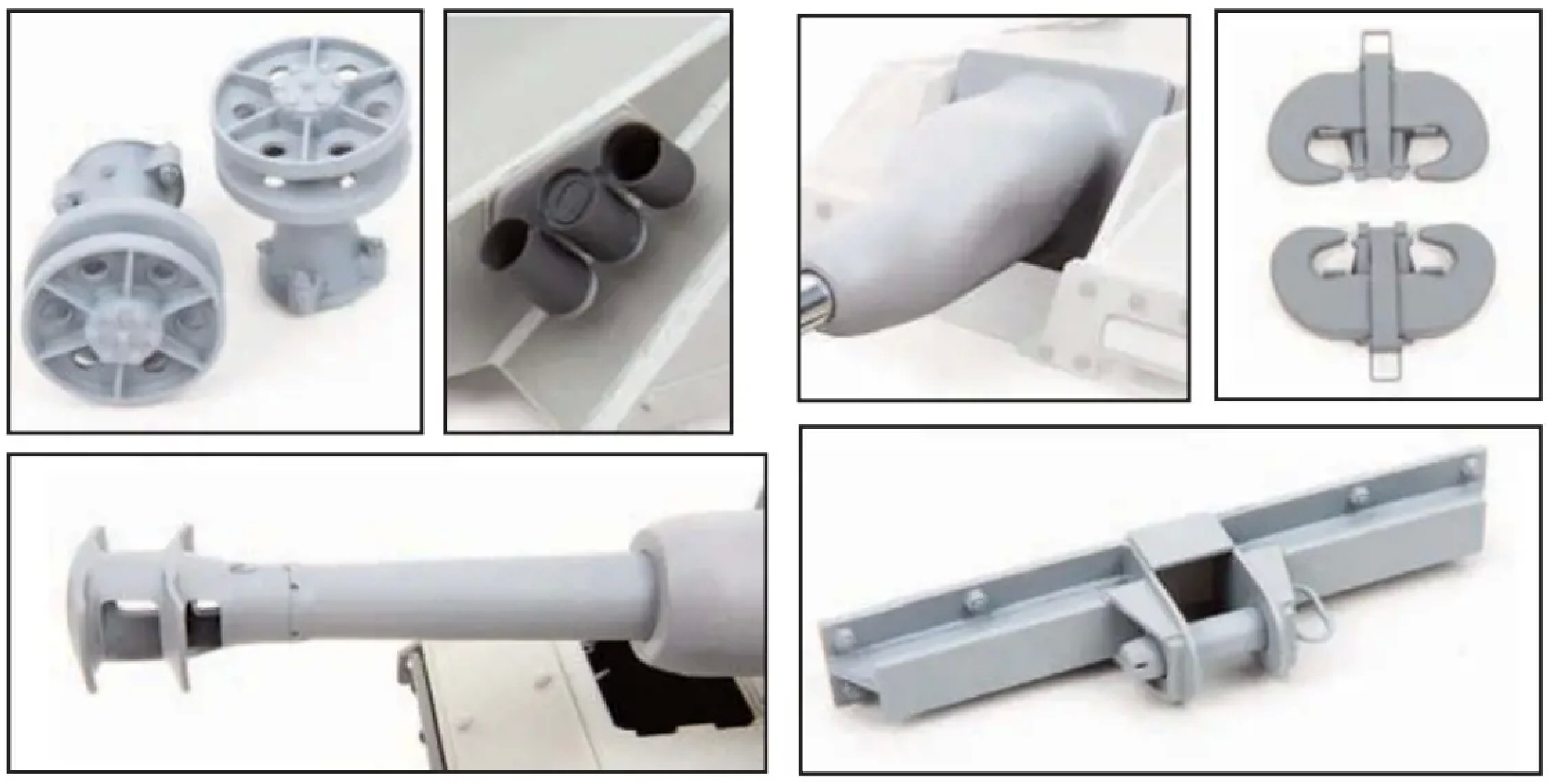

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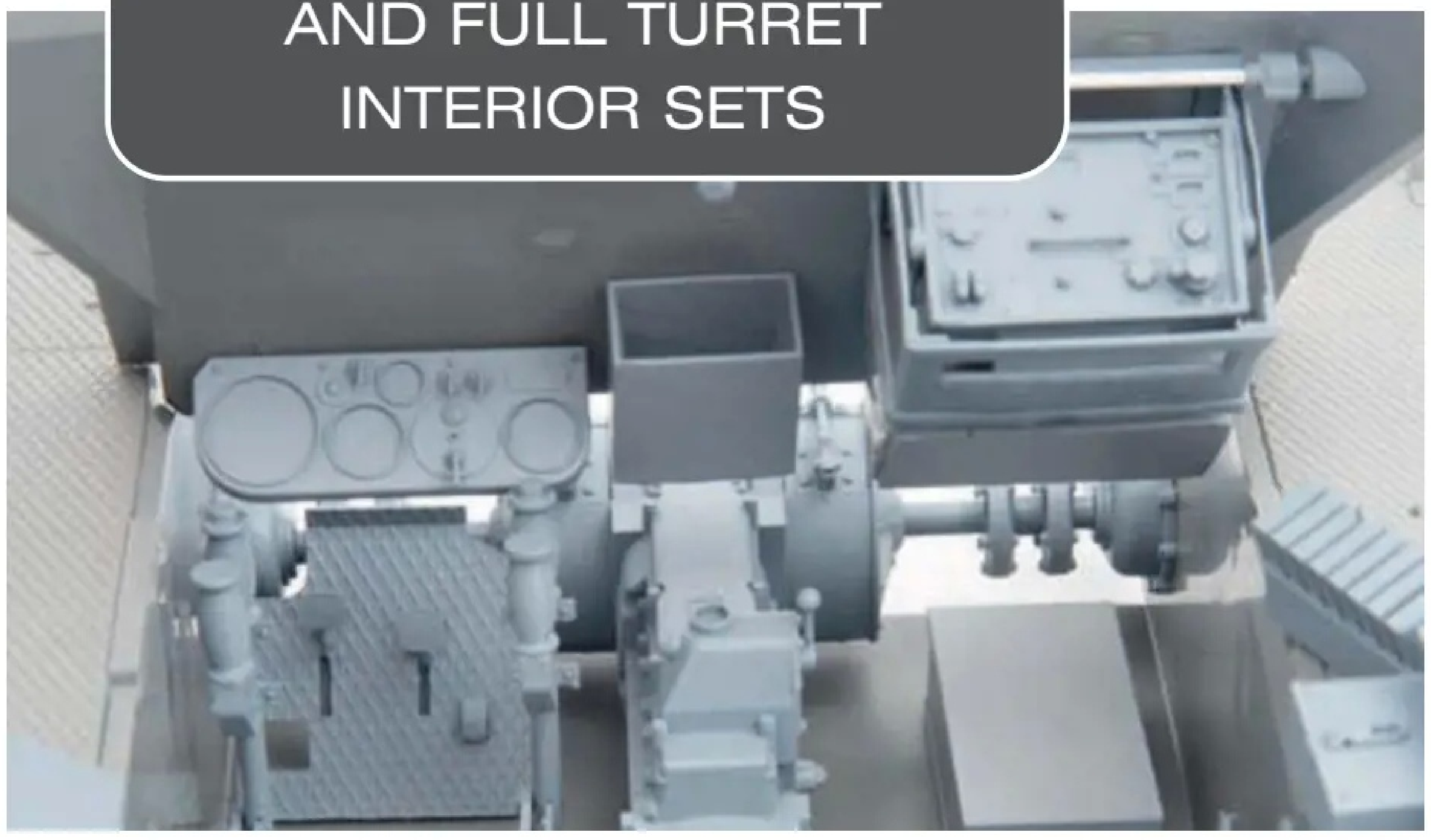
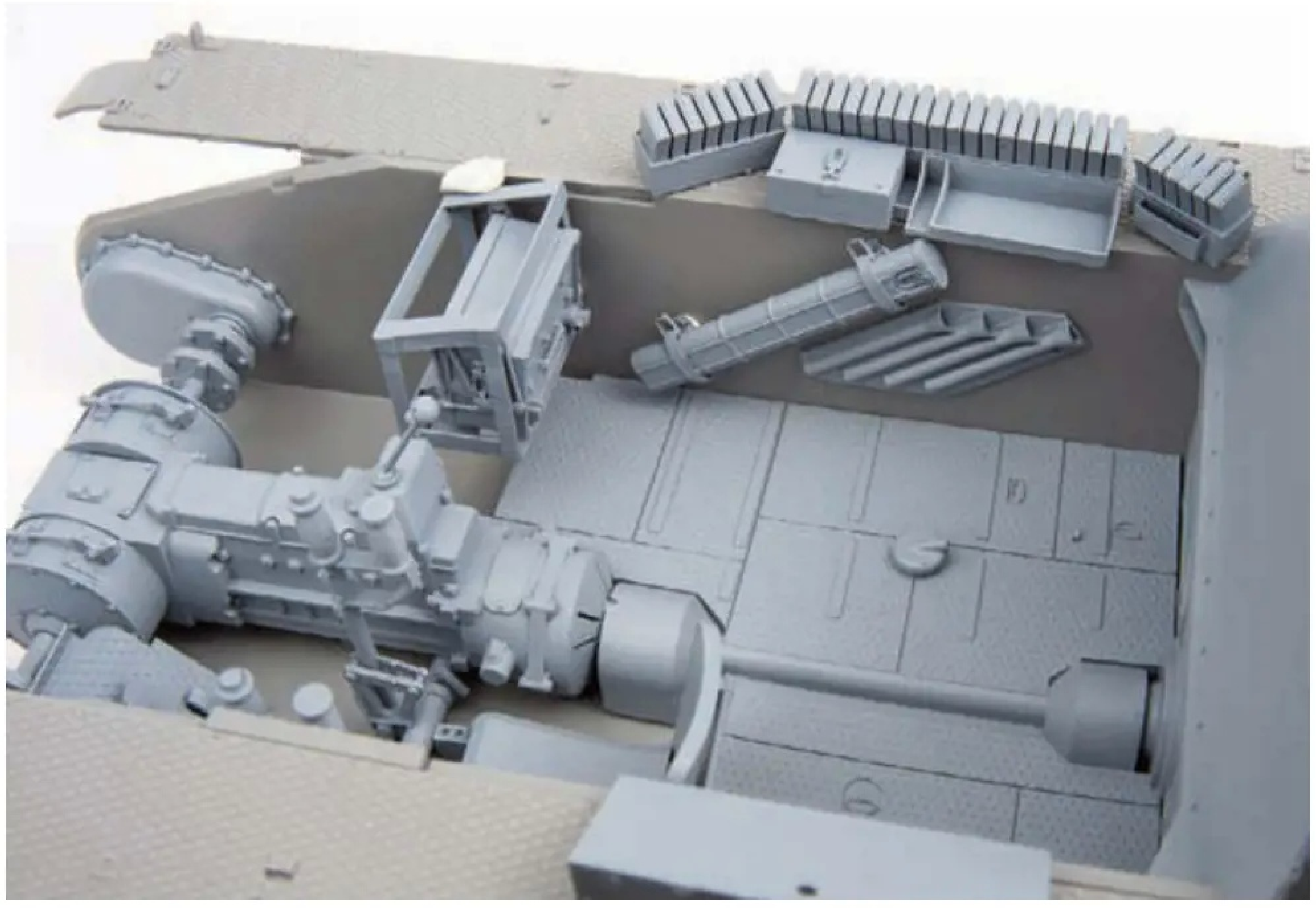
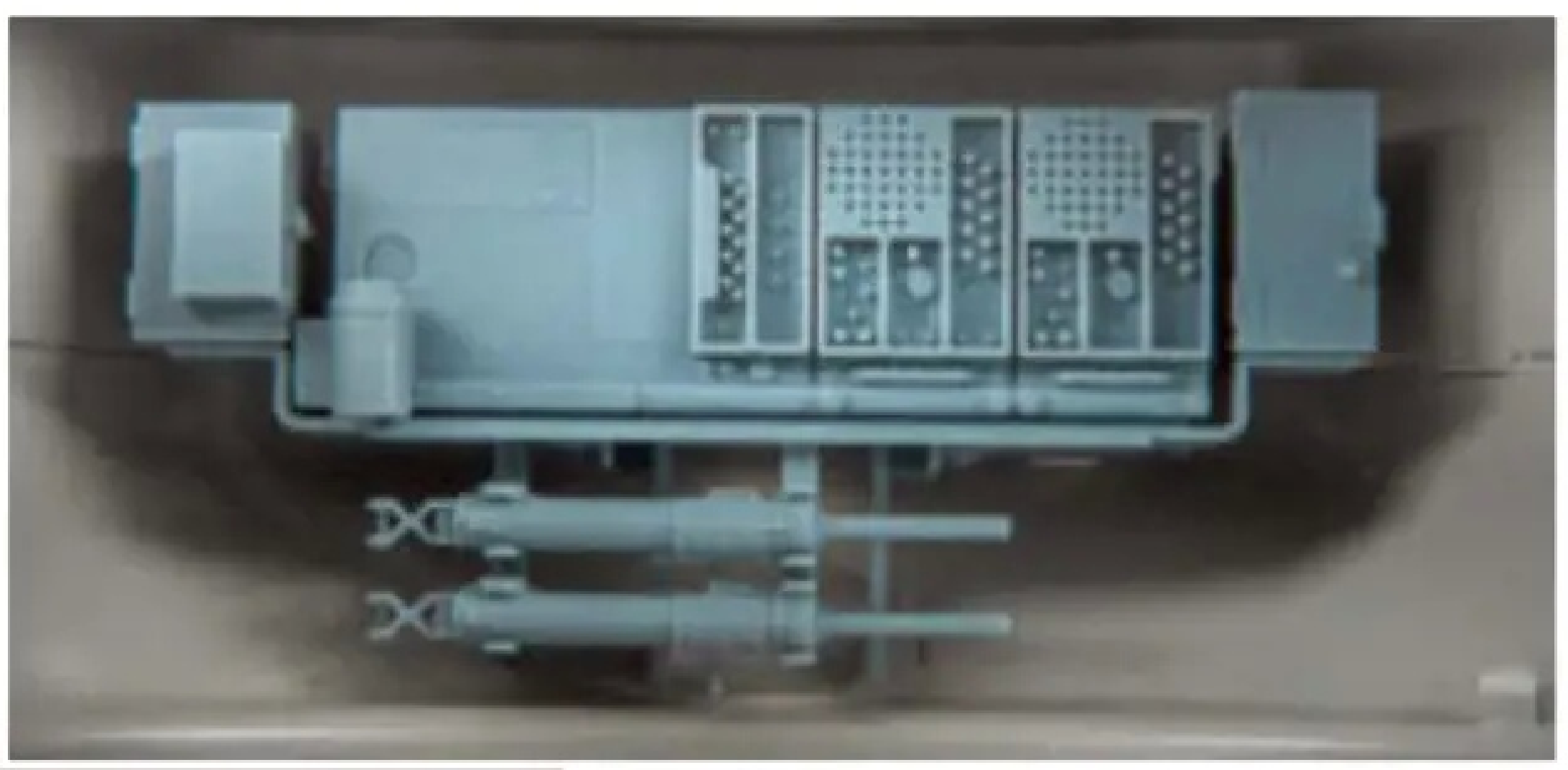
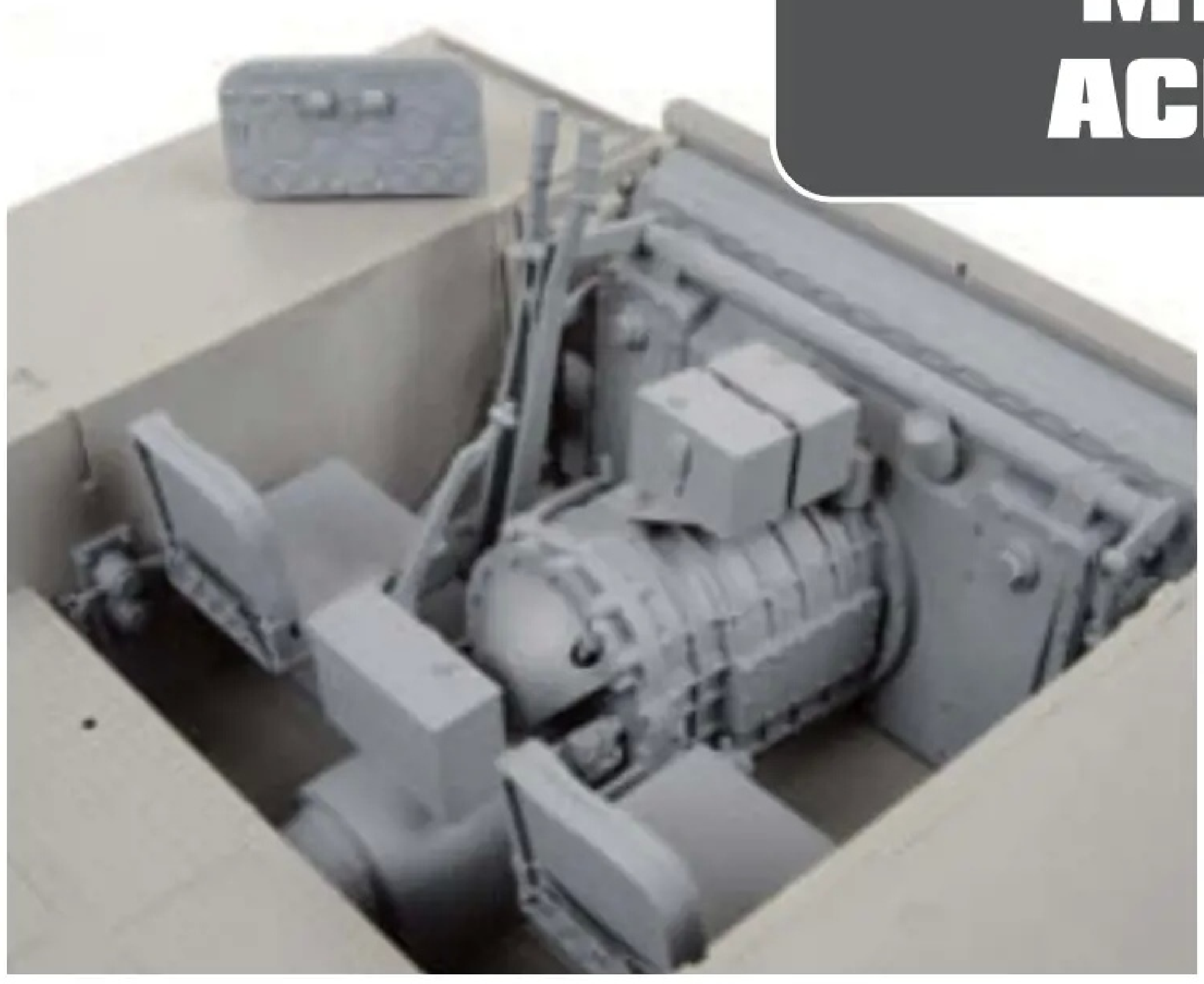




AHHQ SHERMAN, M10 and ACHILLES





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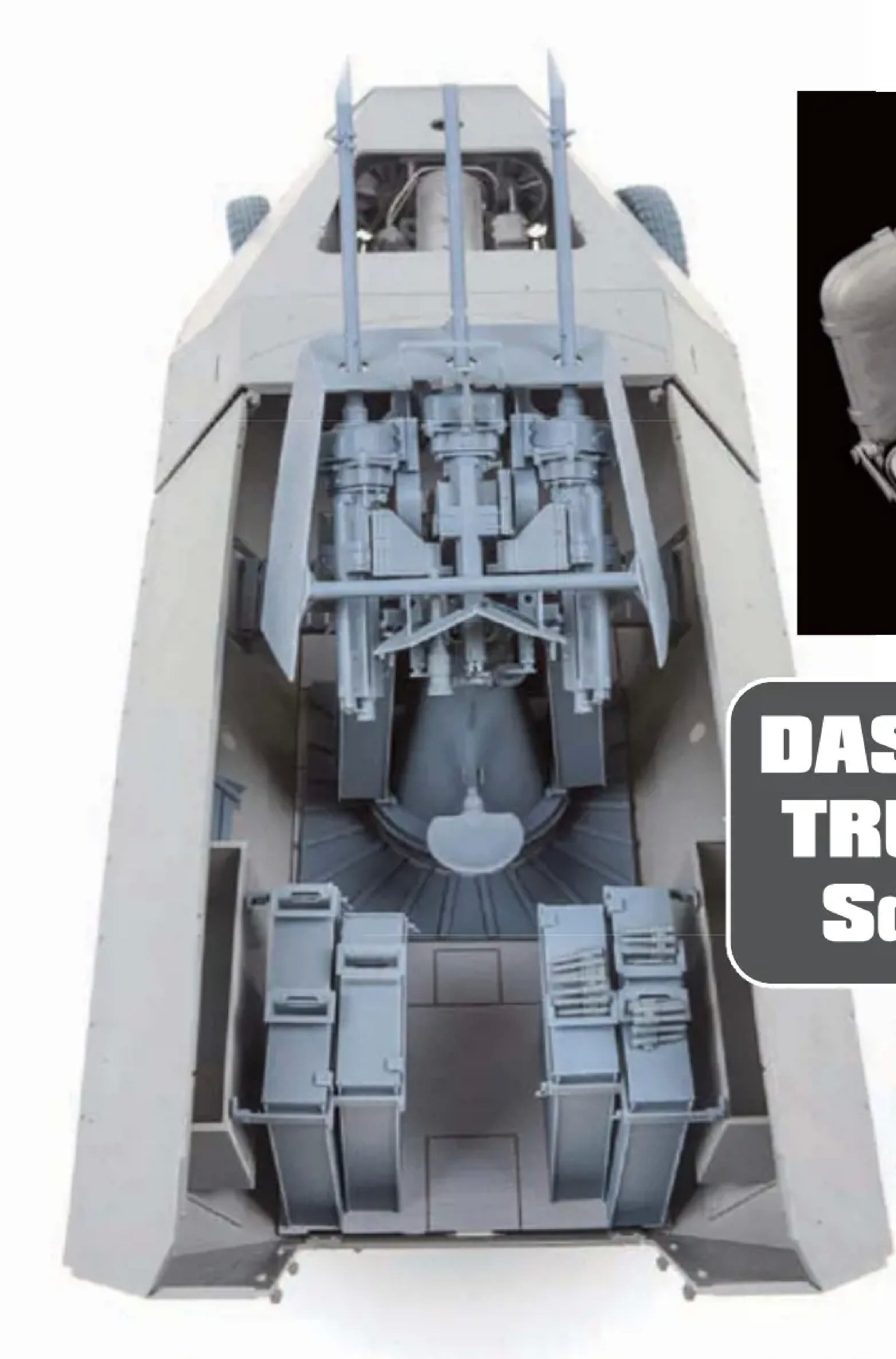

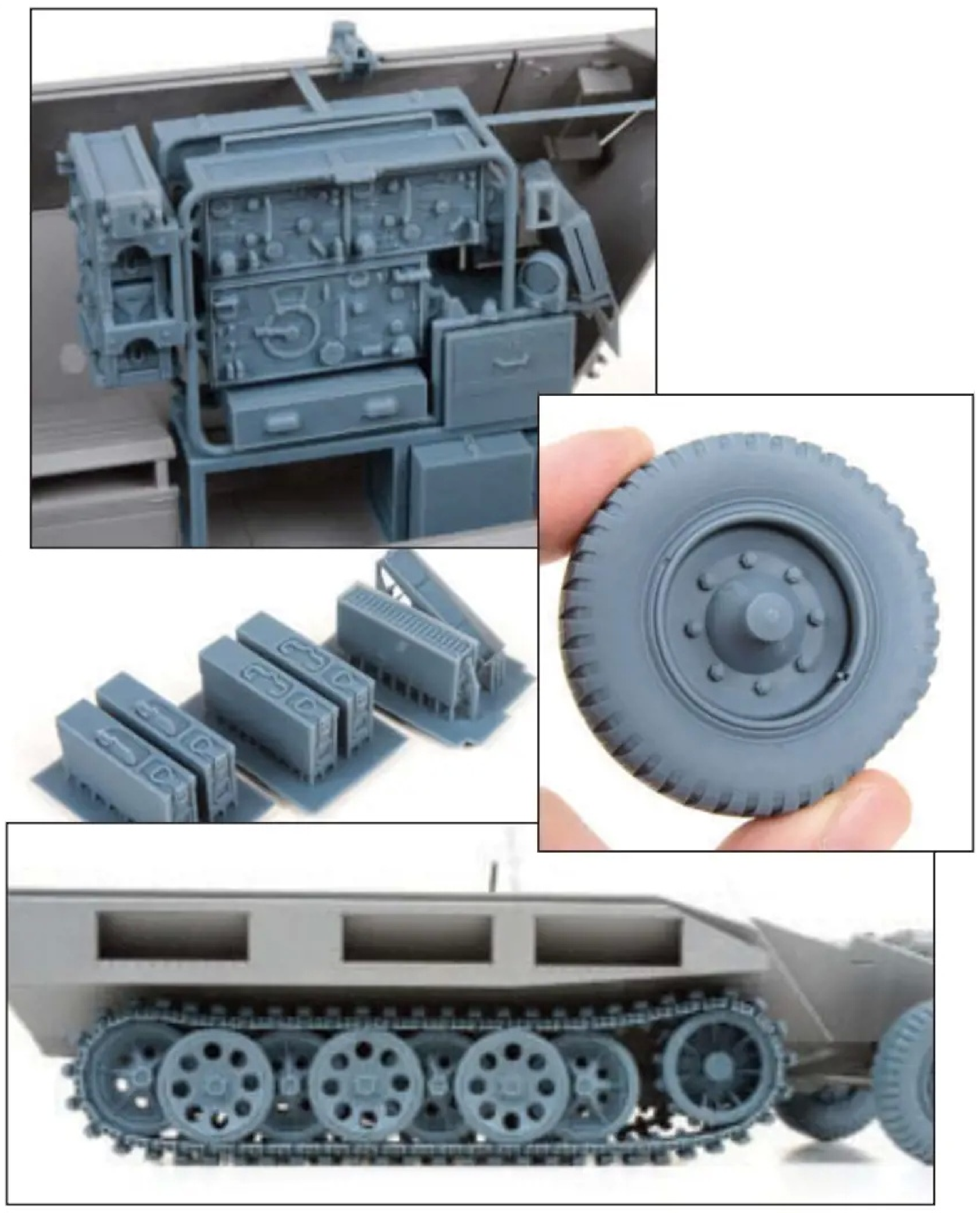

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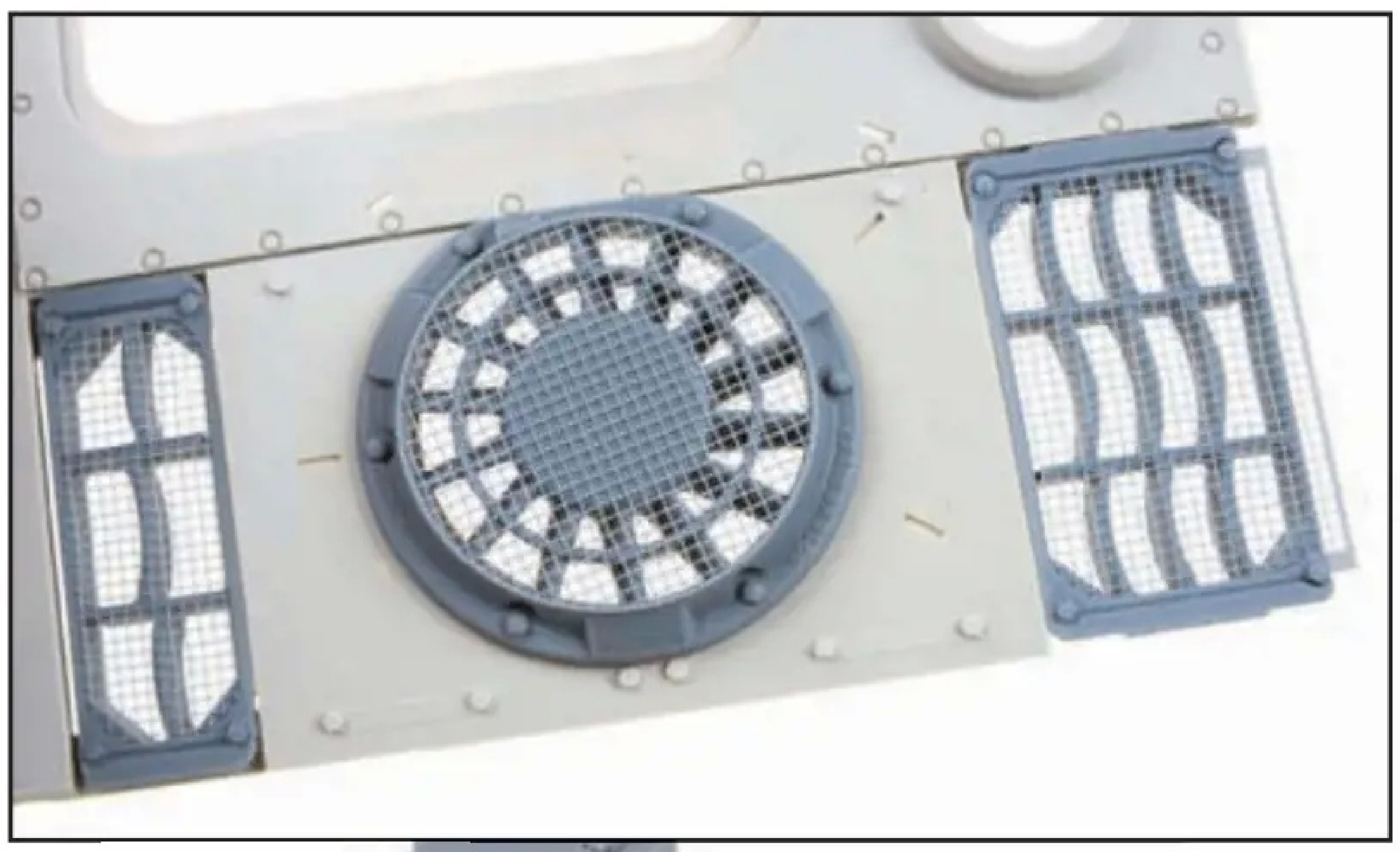

TRUMPETER PANTHER/ JAGDPANTHER

1:16 PANZER I D.A.K. CREW

1:16 ARDENNES SCHWIMMWAGEN CREW

1:16 StuG III CREW

RESIN FIGURES

OVER A DOZEN SETS AND SINGLE FIGURES TO CHOOSE FROM

1:16 PANZER CREW

1:16 SdKfz 251 DRIVER

1:16 EXCLUSIVELY FROM AFV modeller

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STRANDED IN SUMY

T90A

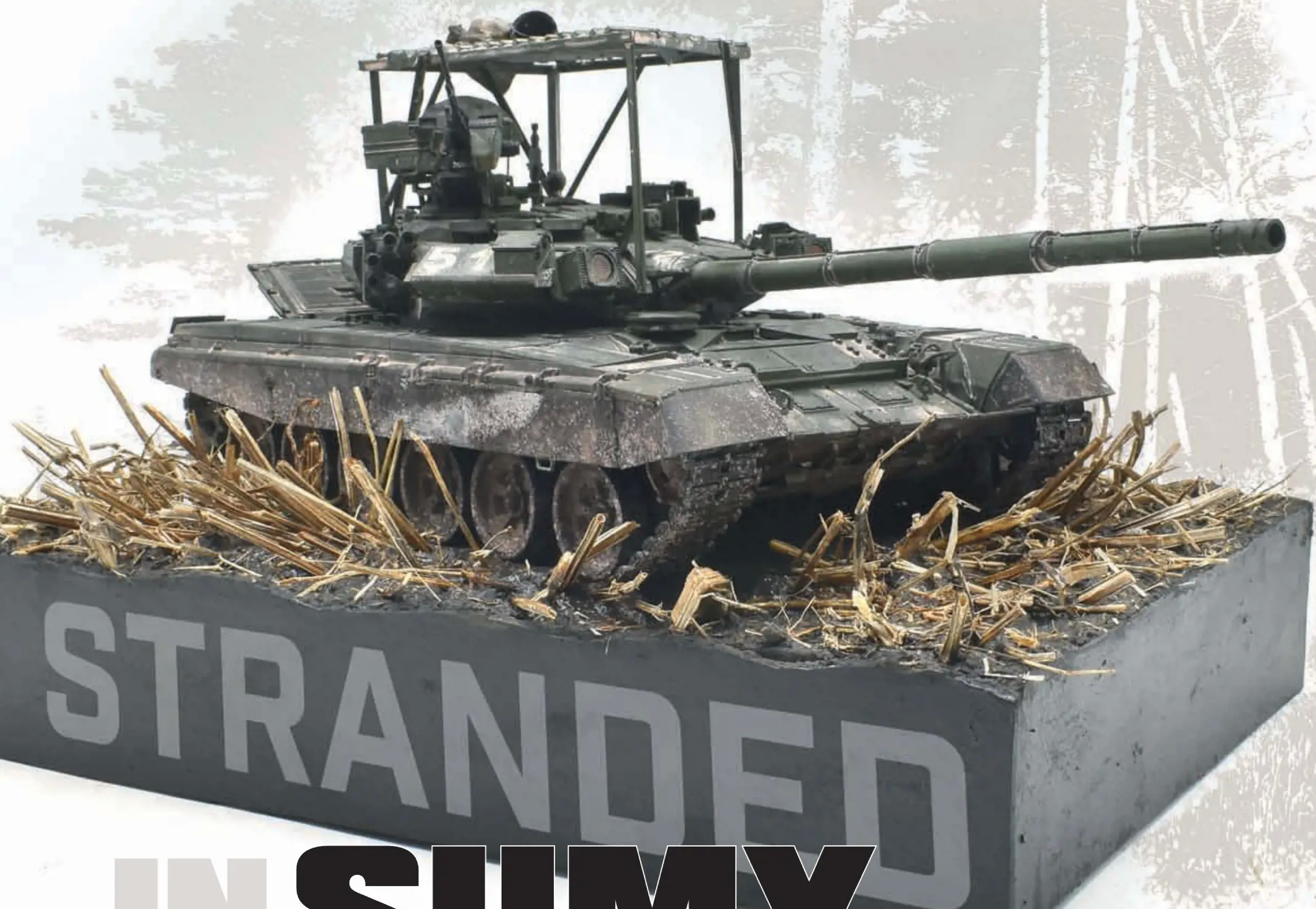
ZACK SEX

BUILDS AMUSING HOBBY'S T90A AND BRINGS IT UP TO DATE WITH RECENT EVENTS IN

Amusing Hobby is a relatively new model company that offers the model maker a wide range of exciting subjects in terms of MBTs, both modern and World War Two. Amusing Hobby also provides the modeller with the full package, whether they like it or not. By this, I mean along with a complete etch detail set, individual movable tracks, the modeller gets a full interior including driver's station, ammunition carousel, full engine bay, and rear transmission unit.

Whether this is their approach with all their kits I'm not certain but their T90A and earlier T72 variants have the full package, along with a bunch of spare parts from interior and external sections which could be used in making a knocked out T72 or the likes. The T90 came into being due to a requirement to streamline the Soviet Union's three main battle tanks into one singular model, the T64, T72, and T80, along with late model T62s had various strengths and weaknesses but by combining the best of all three main models. It was thought in Soviets military circles and later in the Russian army that this would lead to the production of a cost-effective evolution of this Soviet MBT design. The initial T90 series had the smooth round turret reminiscent of the T72 along with the product improved components such as the 2A46 smooth bore 125mm main gun and upgraded fire control system. A gunner's thermal sight, and in terms of protection Kontact 5 explosive reactive armour along with, for its time, a fairly unique passive anti missile defence system in the form of the Shtora infrared jamming units (the large disco lights on the front of the turret).

The Russian armies' disastrous campaign in Checynia and in particular the destruction of a large number of T80 tanks, which in fairness were crewed by inexperienced new recruits only added to the emphasis on developing the new T90 design.



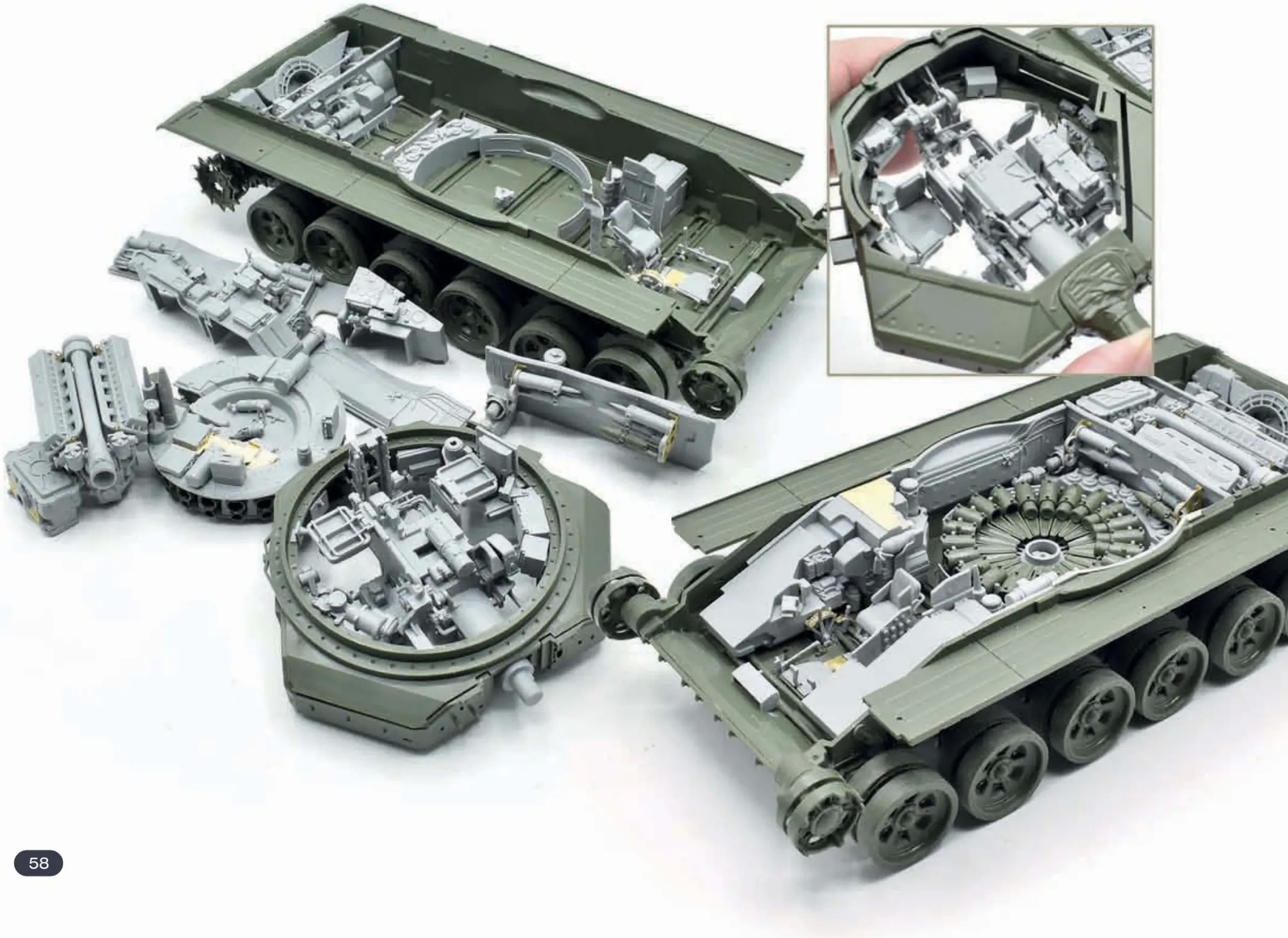
The initial T90 design was followed up with the T90A fairly rapidly the main difference being a flat sided welded turret, which gave better ballistic protection for the crew. In many ways, the T90 series and the similarly patterned update of the T72 in the form of the T72B3 were not only an economically successful but logical evolution of the T72 design very much in keeping with the traditional Soviet approach to tank design and

The Russian military industrial complex lost little time improving what might be seen as their original Soviet catalogue by updating armour, engine, and fire control systems. Vehicles such as the T90, T80, and BMP3 along BTR 80s achieved not only large-scale sales success in former Soviet states but also in countries such as Venezuela, Uganda and Vietnam In Syria T90s, T72B3 were engaged in brutal fighting with a selection of anti Assad regime groups, which, as I write this article, has just kicked off again, with a major HTS offensive. In Iraq, where the Iraqi military had purchased M1 Abrams, the armour Corp has decided to return to Russian T90s, preferring the rugged simplicity of Russian designs over the best of the West. That is not to say that Russian AFVs lack certain western components, the inclusion of critical amounts of Western technology in Russian tanks and IFVs was exposed by Ukrainian forces upon examining large numbers of captured Russian army vehicles after Putin's genocidal invasion of Ukraine in 2022. Beneath the hatches of T90s, T72B3s and BMP3s Ukrainian engineers found fire control systems produced by French and Dutch consortium.

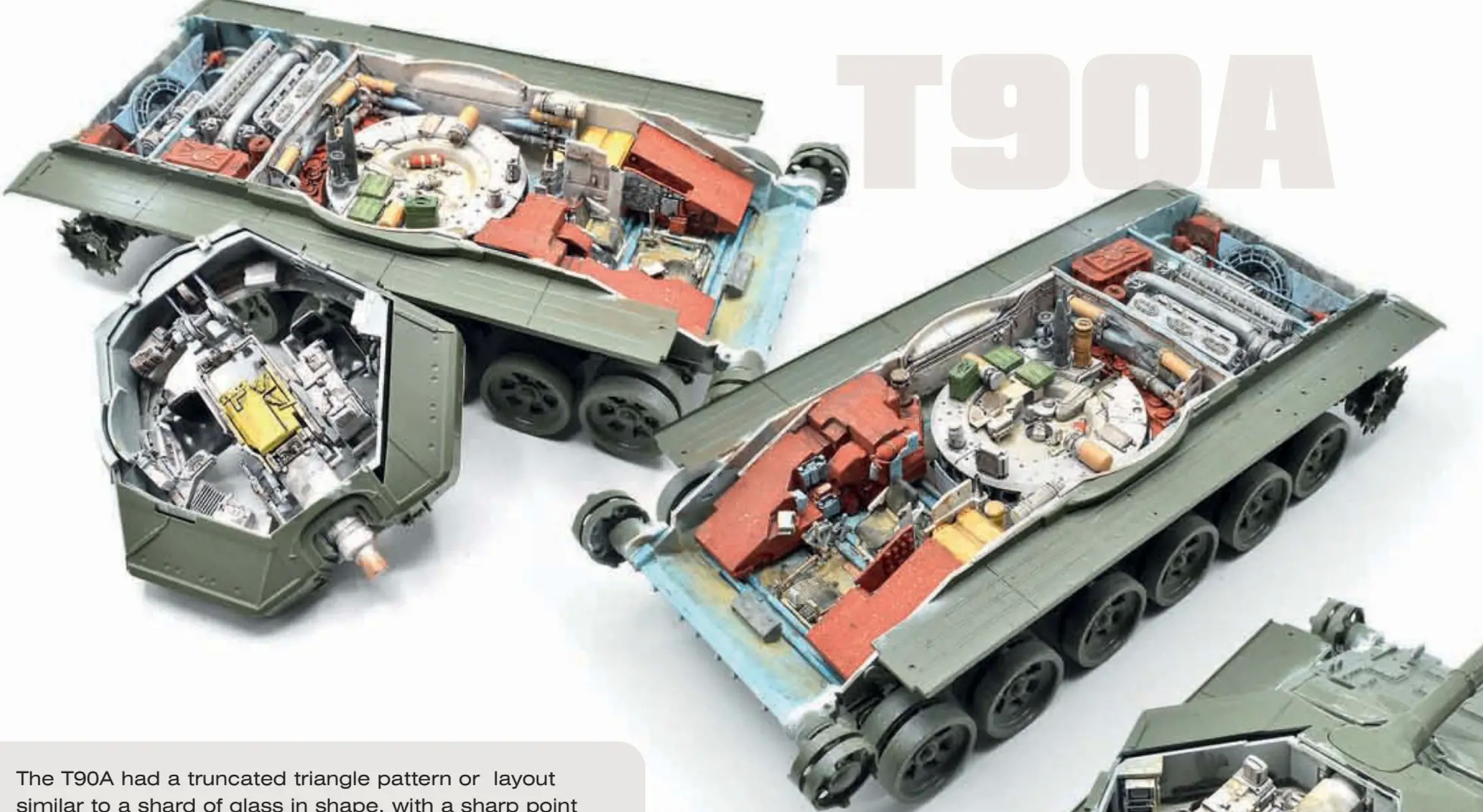
The T90A was one of a number of Russian MBTs that saw action at the start of the conflicts but not to the same extent as the T72B3, T80BVM and more recently T90 series that survived the early battles or are being removed from storage are being updated to T90M standard, that said the T90A is a vehicle that one would want to represent in series of Russian tanks from the Ukrainian conflict. Which brings us nicely on the subject of this article, while building a number of Ukrainian vehicles in the last while it also occurred to me recently , that I wanted to build a series of abandoned Russian tanks, APCs and support vehicles. The highly atmospheric photos of Russian army T72B3s, Guards Unit T80s along with SAM systems and all manner of support vehicles seem to me to offer great modelling potential while in no way glorifying Putin's murderous endeavour. From the start of Putin's invasion, Russian vehicles have appeared wearing roof armour or cope cages in a fairly vain attempt to protect themselves from Javelin NLAWs and more recently Kamikaze drones. To this end, I had picked up a number of cope cages from Hungarian company Balaton Modell. These resin sets are reasonably priced and need a little cleaning up, and presto you get that a Ukraine War roof rack with its distinctive symmetrical unit complete its angled sloped front section .

These Balaton items are seen on numerous vehicles and seem to have been fairly standard designs distributed to many tank units throughout the Russian invasion forces. There are, however, a number of variations on the Russian army cope cage. Before tackling the cope cage issue, I had to build the Amusing Hobby kit, this took time with its complete interior all of which the Russians colour code depending on the type of equipment (yellow for the gun breach, red for fuel etc) the construction of the kit is very well laid out and the part fit and detail is modeller-friendly. As you work your way through the internals of the beast you get a nice sense of satisfaction as the project comes together, I decided to open the engine bay to give the viewer a glimpse of the transmission as these are often open on vehicles operating in the field.

With the internal work complete I began adding the external details and thinking about the shots of the T90A standed in Sumy on which I wanted to base my model. It is also worth noting here that I had completed a Meng T90A in Syrian service a while back, which was fairly similar to the Amusing Hobby kit but had no interior details, anyway I digress. On close examination of the reference photos, I noticed that the T90As abandoned in Sumy had a very different anti missile cope cage constructed above their turrets.

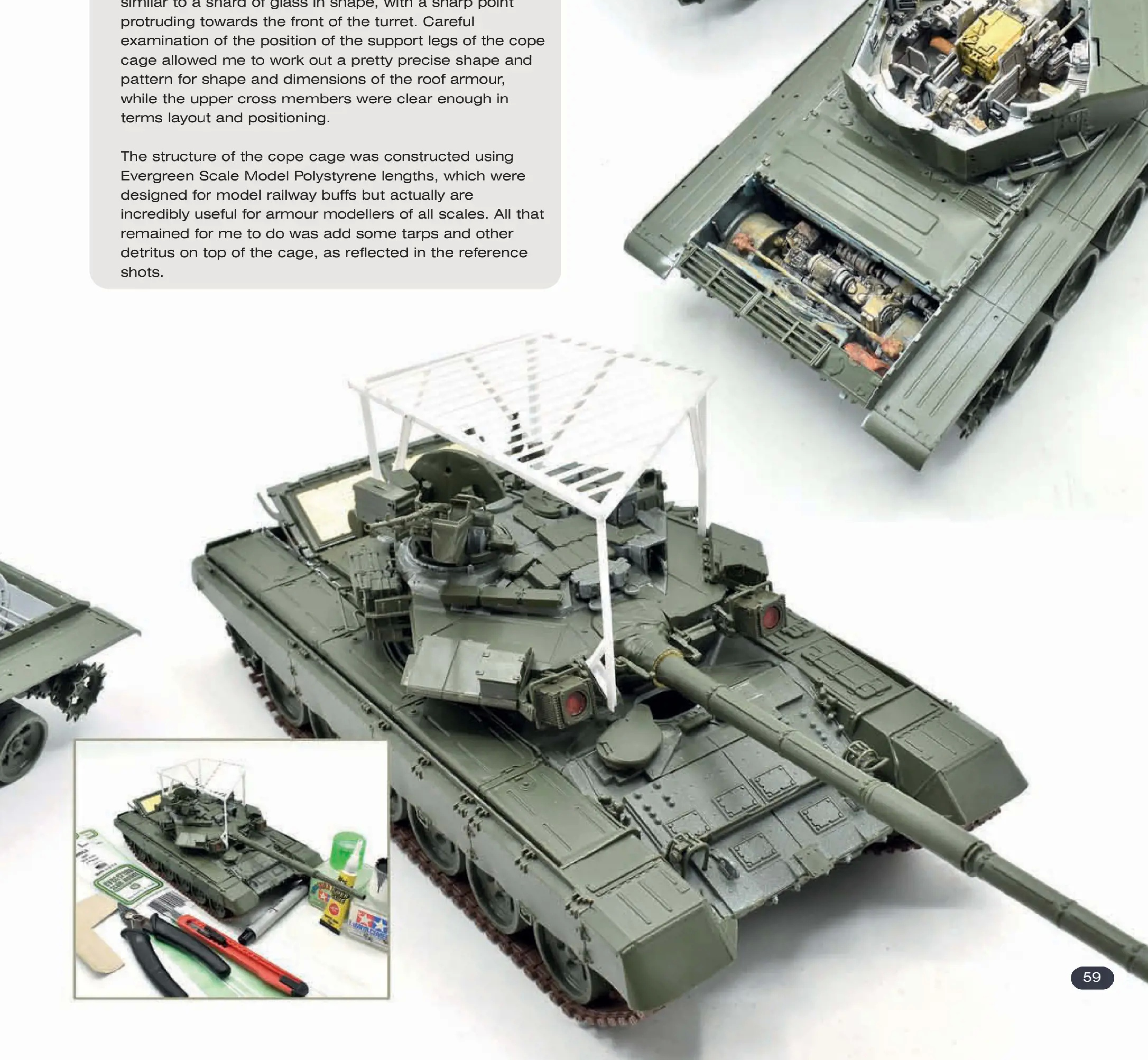


T90A



The T90A had a truncated triangle pattern or layout similar to a shard of glass in shape, with a sharp point protruding towards the front of the turret. Careful examination of the position of the support legs of the cope cage allowed me to work out a pretty precise shape and pattern for shape and dimensions of the roof armour, while the upper cross members were clear enough in terms layout and positioning.

The structure of the cope cage was constructed using Evergreen Scale Model Polystyrene lengths, which were designed for model railway buffs but actually are incredibly useful for armour modellers of all scales. All that remained for me to do was add some tarps and other detritus on top of the cage, as reflected in the reference shots.



Upon completion of construction, which included missing side armour panel, I primed the model in a good coat of dark grey car primer. Over this, I blasted a diluted coat of Tamiya NATO green acrylic, which seemed pretty accurate to the reference shots.

Next, I applied a number of pigment washes from the Wilder series. These come in handy tubs and in ranges such as Russian mud and the likes, which seem pretty appropriate. I then applied black washes both in the form of black artist oil paint washes and panel line washes in brown and black for extra emphasis. Rubbing 6B pencil lead along the edges of the vehicle, and cope cage was obligatory.

This was followed up with buffing of the vehicle after decals were applied with artists' oil Sap green. This oil paint is rubbed on in selected areas and near completely rubbed off, leaving a pleasant sheen on high lighted areas and curved sections like tank barrels and fuel drums. This series of processes is repeated a number of times, particularly the splattering of earthy pigment tones, which are speckled and splashed in a fashion that you will know if you over do it, then it needs removing and redoing till visually appealing or correct to your eye. The next big adventure was a suitable base. To this end, I returned to a base type that I had recently experimented with and used on a Cambodian T54, that of a muddy field with the remains of harvested crop. This base is made using a Styrofoam base framed off with a mounting card edge. Over this, I pour on and spread out a plaster mixed with Mars black and Raw Umber acrylic and the contents of two or three used tea bags.

The plaster mix works best when not too wet and not too thick as I now pop the vehicle straight down into this gloppy surface, and you need to be able to sink the tank into the surface but still see the surface face of the lower tracks. Crushed concrete and grit are then liberally sprinkled into areas around the vehicle and then the fun bit and certainly my favourite part of the lot..planting the crop. This part involves pressing cut pieces of straw and dried weeds into the still wet base in a visually arresting fashion. I tend to have the weeds or straw on the sides of the vehicle bending away from the model while leaving scrunched up crushed weeds in front and behind the model. Are these sections of dried weed and straw perfectly in scale as a representation of an actual real-life crop? No but that's not what it's about for me, perhaps it's my time in NCAD art collage where I seem to remember a number of students producing all kinds of installations and paintings with similar materials, for me it's about an overall impression of the tank moving through the black muddy earth with the remaining stalks of whatever had been planted there originally.

I have to say that despite all of the indepth detail work, internal details included in this kit, I probably enjoyed sticking the cope cage on the roof of the T90 and plonking it down in its mucky field base the most on this particular project. Right time to get cracking on an abandoned T55 or T62 next, till next stay safe and happy modelling.

T90A

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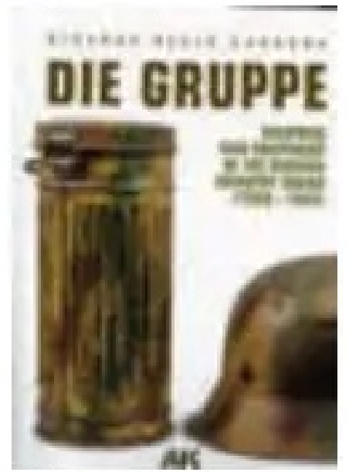
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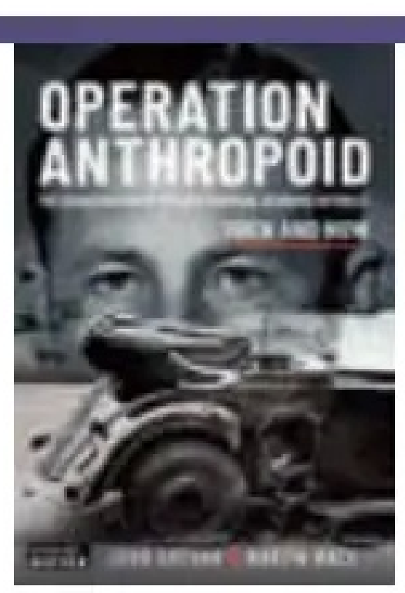
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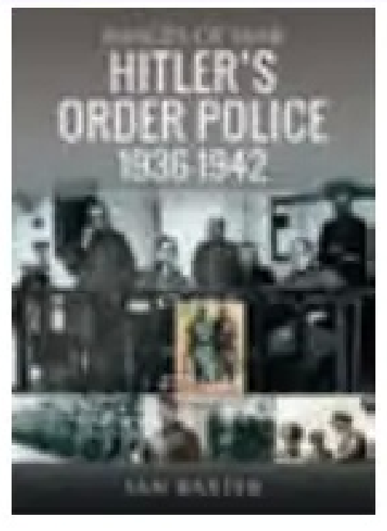
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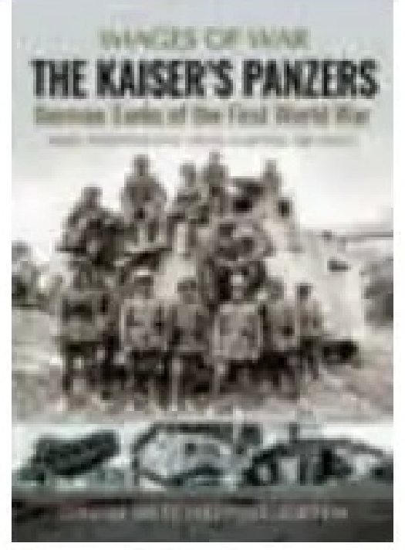
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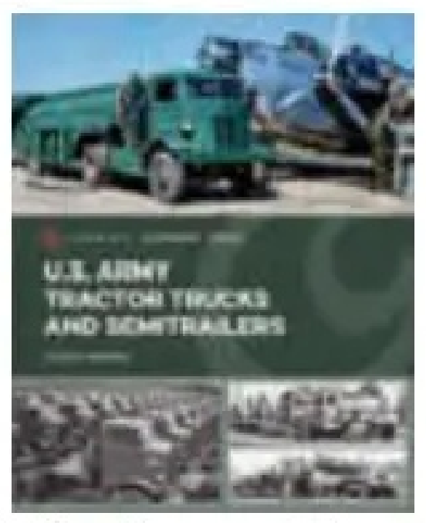
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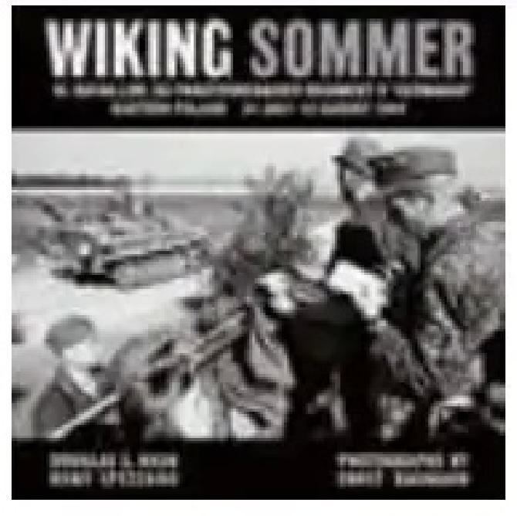
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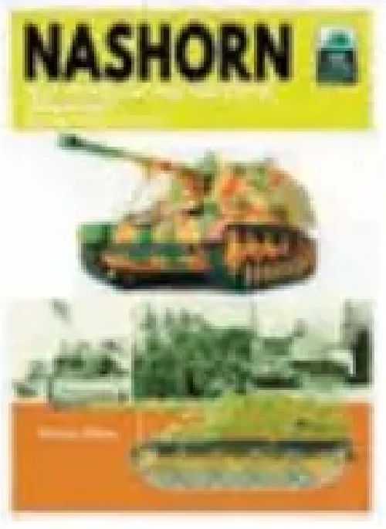
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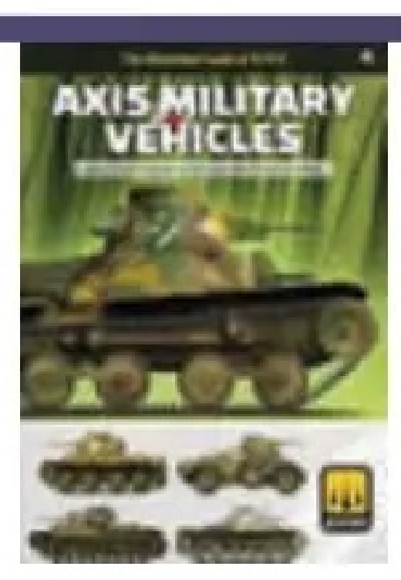
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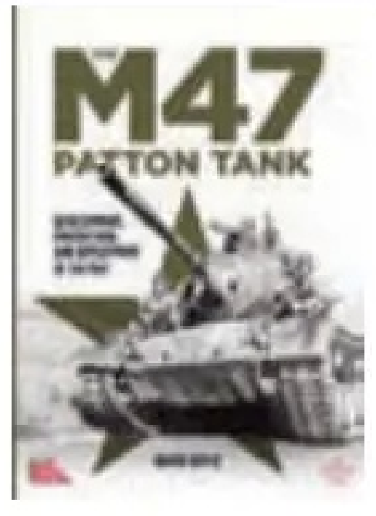
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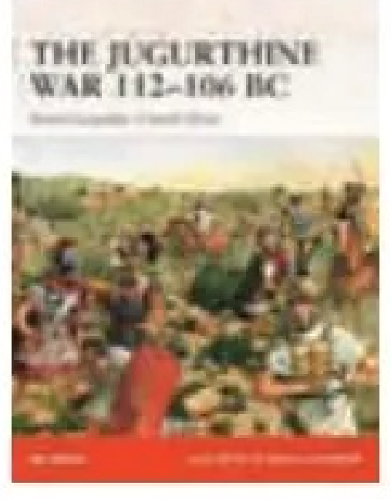
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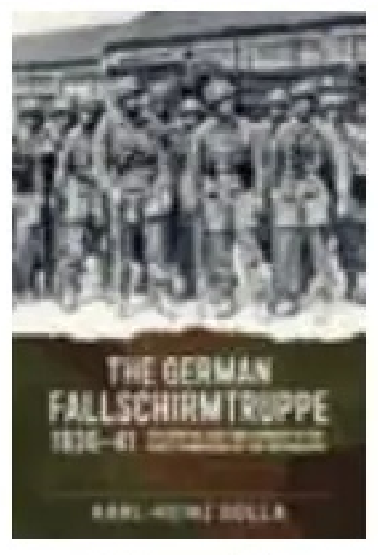
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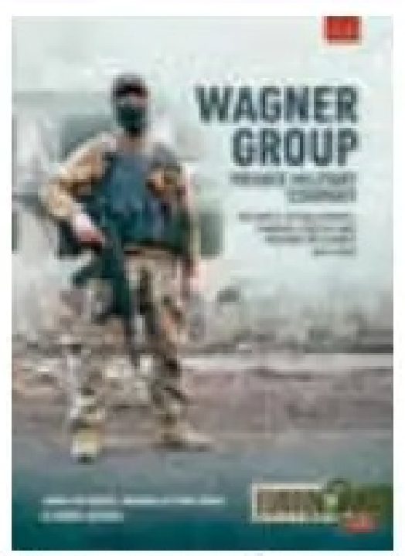
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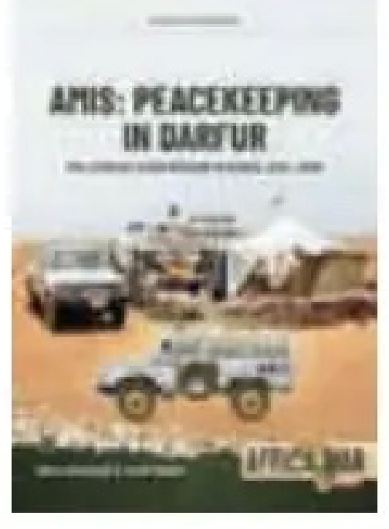
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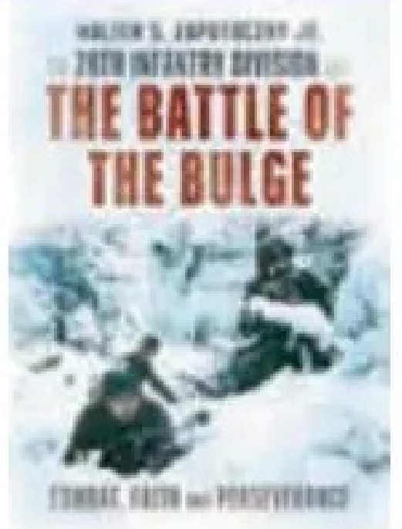
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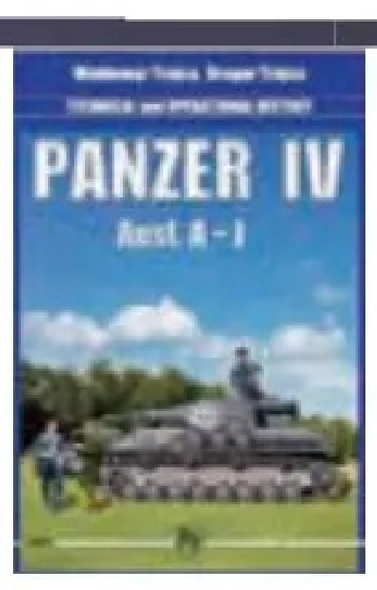
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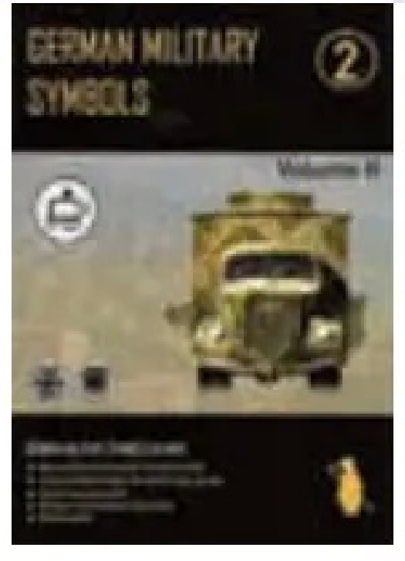
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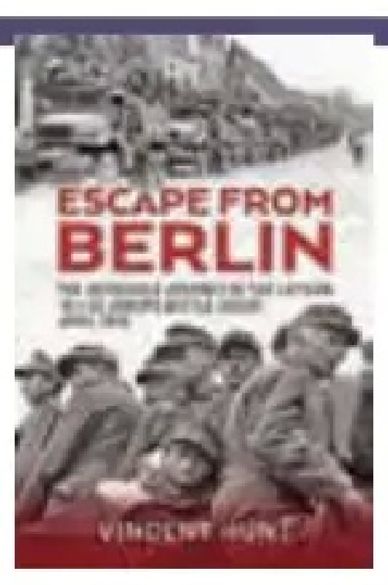
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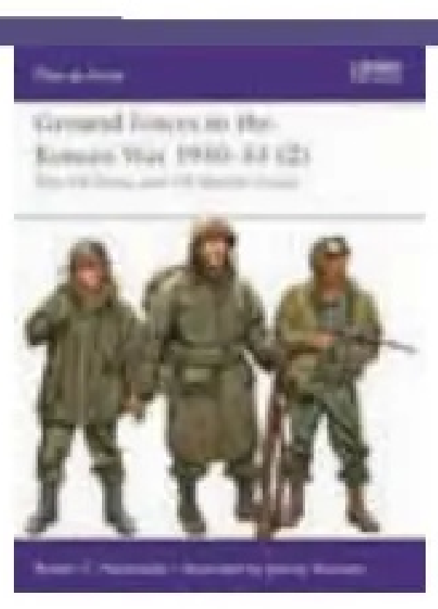
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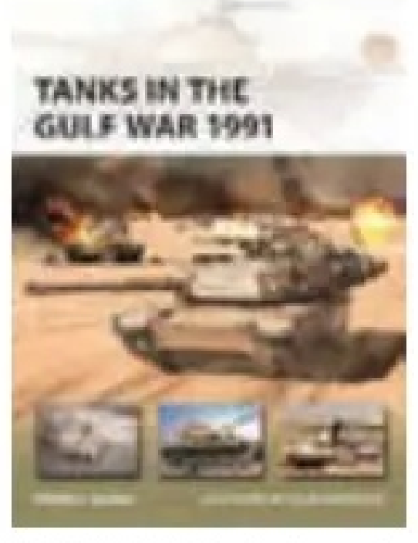
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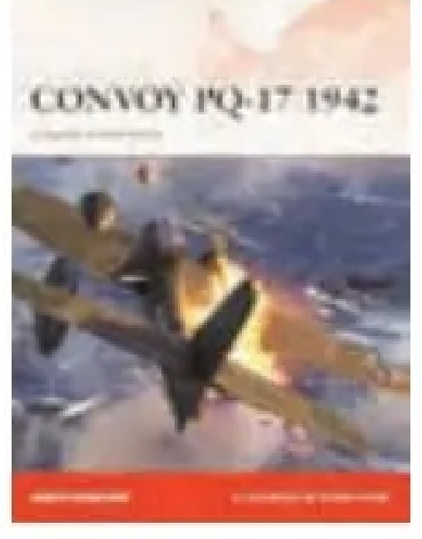
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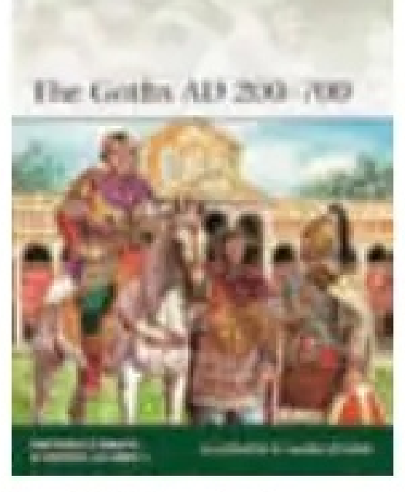
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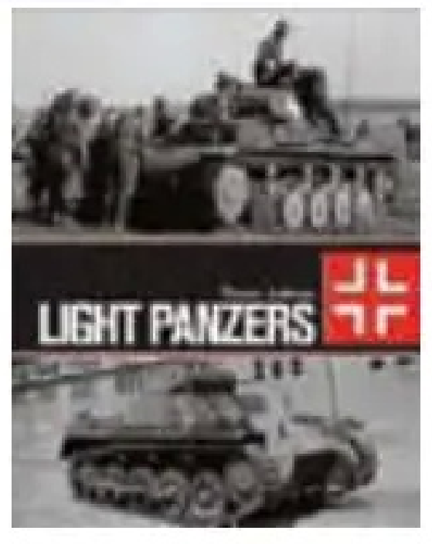
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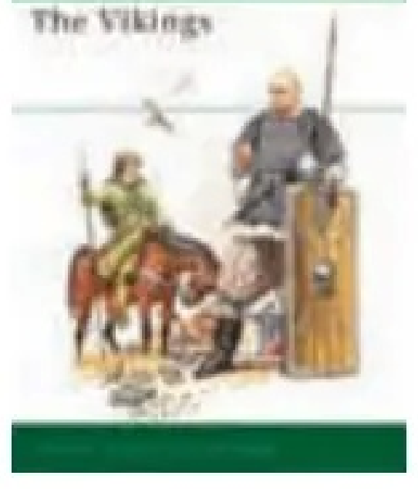
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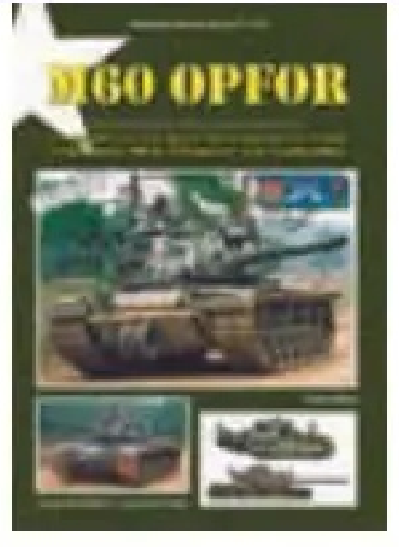
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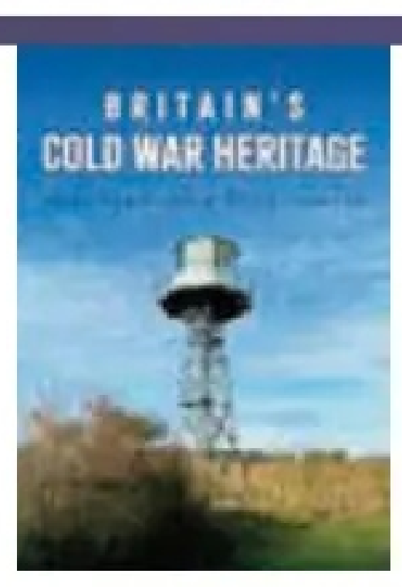
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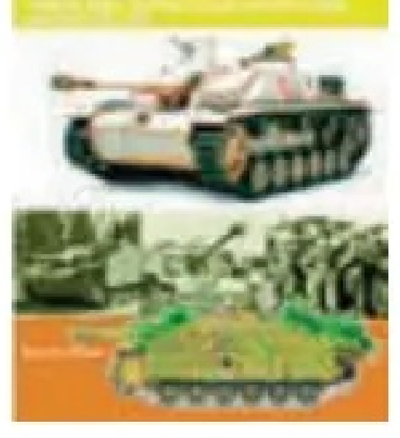
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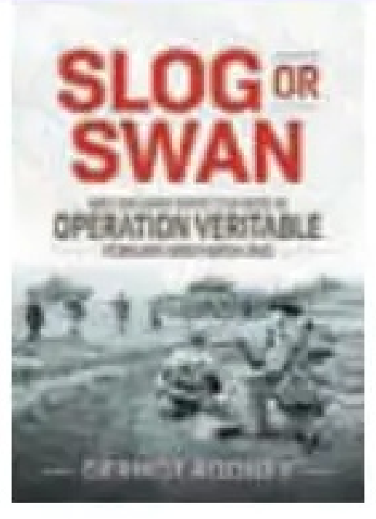
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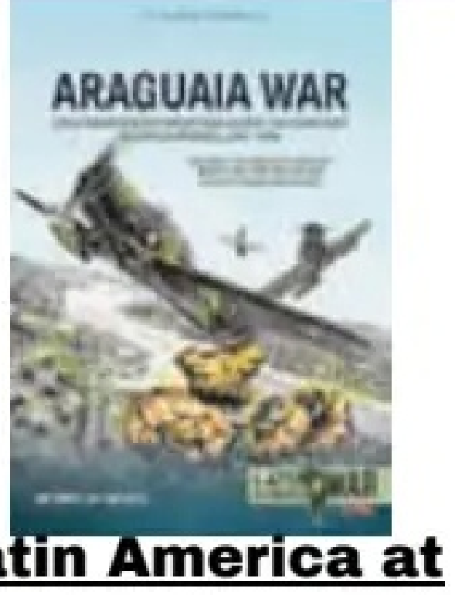
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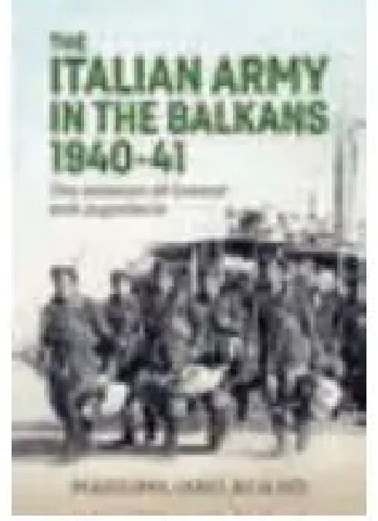
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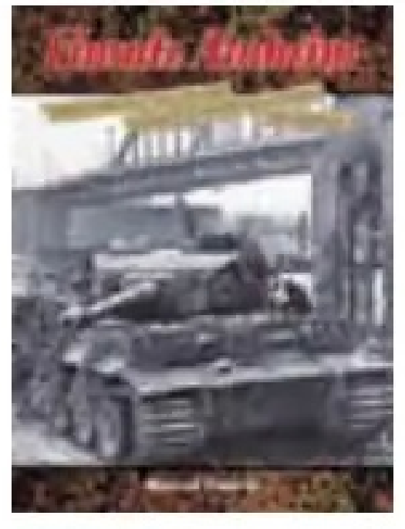
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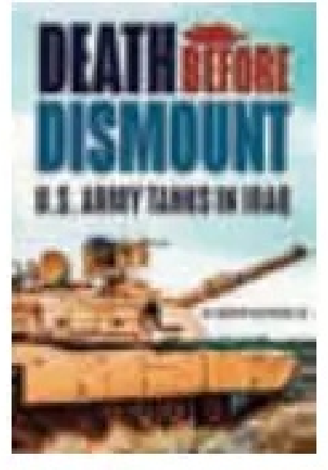
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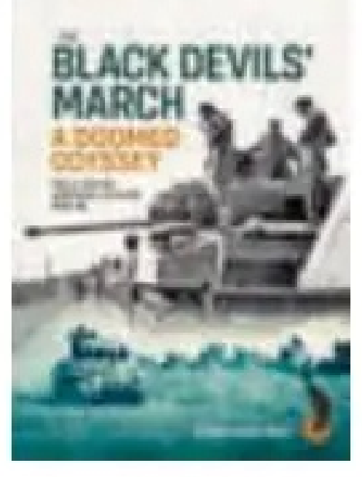
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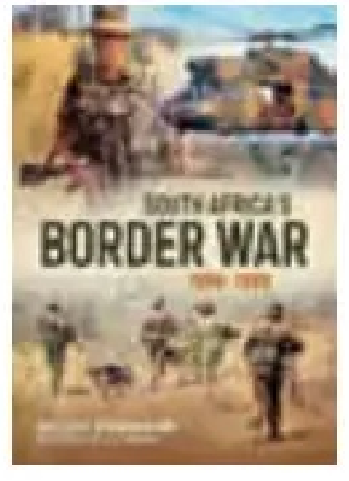
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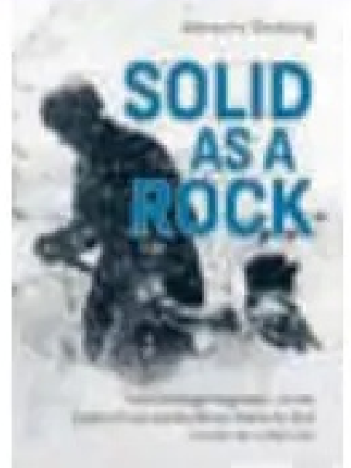
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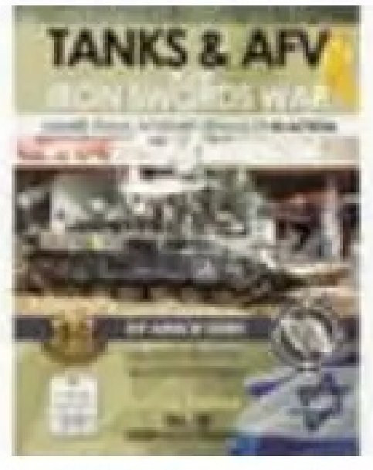
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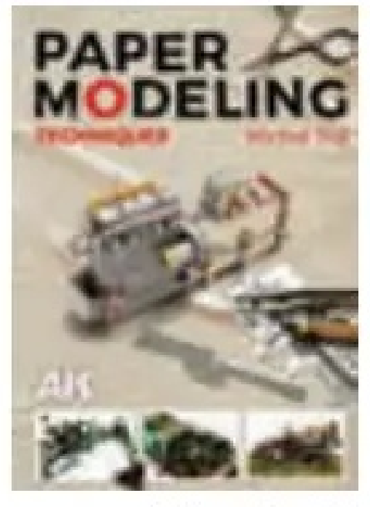
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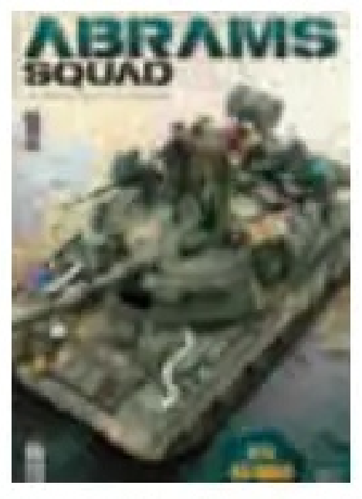
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